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Spill Summary Report for NRC Report #722896

Report Date: 9/21/2018

Report Time: 1:00 PM EDT

Region IV Hotline Log Entry Information

Data ID: 17315
Date Of Report: 25-MAY-04
Material Type:
Material / Amount: NO CHRIS CODE / 250000 POUND(S)
Location: City: CONYERS
County: ROCKDALE
State: GA
Source of Pollution: BIO-LABS INC.
Water Body:
State Or EPA Responded:
Initial EPA Action:
Status:
URL:

NRC #: 722896
State #: NONE
ERNS #:
Receiver:

HQ Hotline Log Entry Information

Data ID: 17314
Date Of Report: 25-MAY-04
Material Type:
Material / Amount: NO CHRIS CODE / 250000 POUND(S)
Location: City: CONYERS
County: ROCKDALE
State: GA
Source of Pollution: BIO-LABS INC.
Water Body:
State Or EPA Responded:
Initial EPA Action:
Status:
URL:

NRC #: 722896
State #: NONE
ERNS #:
Receiver:

NRC Spill Report

NATIONAL RESPONSE CENTER 1-800-424-8802
GOVERNMENT USE ONLYGOVERNMENT USE ONLY***
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applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 722896

INCIDENT DESCRIPTION

*Report taken by: MST3 JEFFRY CREWS at 06:13 on 25-MAY-04
Incident Type: FIXED
Incident Cause: UNKNOWN
Affected Area:
The incident occurred on 25-MAY-04 at 04:15 local time.
Affected Medium: LAND SOIL

REPORTING PARTY

Name: DONNA MAJEWSKI
Organization: BIO-LABS INC.
Address: EXT 8527
CONYERS, GA 30012
BIO-LABS INC. called for the responsible party.
PRIMARY Phone: (770) 4832600

INCIDENT LOCATION

1700 OLD COVINGTON HWY County: ROCKDALE

City: CONYERS State: GA Latitude: 33 Degrees 39' 27" N

Longitude: 84 Degrees 0' 33" W
PLANT 14 WAREHOUSE

RELEASED MATERIAL(S)

CHRIS Code: NCC Official Material Name: NO CHRIS CODE

Also Known As: POOL CHEMICALS/ OXIDIZERS

Qty Released: 250000 POUND(S) Qty in Water: 0 UNKNOWN AMOUNT

DESCRIPTION OF INCIDENT

THE MATERIAL RELEASED DUE TO A FIRE

SENSITIVE INFORMATION

INCIDENT DETAILS

Package: N/A

Building ID:

Type of Fixed Object: OTHER

Power Generating Facility: UNKNOWN

Generating Capacity:

Type of Fuel:

NPDES:

NPDES Compliance: UNKNOWN

IMPACT

Fire Involved: YES Fire Extinguished: NO

INJURIES: NO Hospitalized: Empl/Crew: Passenger:

FATALITIES: NO Empl/Crew: Passenger: Occupant:

EVACUATIONS: YES Who Evacuated: EVERYONE Radius/Area:

Damages: UNKNOWN

<u>Closure Type</u>	<u>Description of Closure</u>	<u>Hours Closed</u>	<u>Direction of Closure</u>
---------------------	-------------------------------	---------------------	-----------------------------

Air: N

Road: Y OLD COVINGTON HWY

Major Art
N

Waterway: N

Track: N

Passengers Transferred: UNKNOWN

Environmental Impact: UNKNOWN

Media Interest: HIGH Community Impact due to Material: YES

REPORTING PARTY

Type of Organization: PRIVATE ENTERPRISE

SUSPECTED RESPONSIBLE PARTY

Name: DONNA MAJEWSKI

Organization: BIO-LABS INC.

Address: EXT 8527

CONYERS, GA 30012

PRIMARY Phone: (770)4832600

Type of Organization: PRIVATE ENTERPRISE

REMEDIAL ACTIONS

FIRE FIGHTING IN PROGRESS

Release Secured: NO

Release Rate:

Estimated Release Duration:

WEATHER

Weather: CLEAR, ⬥F

ADDITIONAL AGENCIES NOTIFIED

Federal: NO
State/Local: LEPC
State/Local On Scene: FD, POLICE, LEPC
State Agency Number: NONE

NOTIFICATIONS BY NRC

AGCY TOXIC SUBST & DISEASE REGISTRY (PRIMARY)
25-MAY-04 06:40 (404)4980120 MS. WILLIAMS
CHEM SAFETY AND HAZARD INVEST BOARD (PRIMARY)
25-MAY-04 06:46 (877)2756207 SMITH
EPA OEPPR (PRIMARY)
25-MAY-04 06:38 (202)5643850 SHIELA
U.S. EPA IV (PRIMARY)
25-MAY-04 06:35 (404)6504955 MISENHEIMER
FEDERAL EMERGENCY MANAGEMENT AGENCY (PRIMARY)
25-MAY-04 06:34 (800)6347084 KEVIN BISCOE
GULF STRIKE TEAM (PRIMARY)
25-MAY-04 06:35 (251)4416601 DUTY OFFICER
NOAA 1ST CLASS BB RPTS FOR GA (PRIMARY)
25-MAY-04 06:28 (206)5266344
NOAA- OR&R. ATTN: CDR BLAKE (PRIMARY)
25-MAY-04 06:43 (202)2671321 CDR BLAKE
NATIONAL RESPONSE CENTER HQ (PRIMARY)
25-MAY-04 07:09 (202)2672100 NRCDO
NTSB PIPELINE (PRIMARY)
25-MAY-04 06:28 (202)3146293
RSPA OFFICE HAZARDOUS MATERIALS (PRIMARY)
25-MAY-04 06:43 (202)3661863 SHANNON
RSPA OFFICE OF PIPELINE SAFETY (PRIMARY)
25-MAY-04 06:45 KADNAR
STANDING JOINT FORCE HQ HOMELAND (PRIMARY)
25-MAY-04 06:28 (757)8368273
STANDING JOINT FORCE HQ HOMELAND (J39 INFORMATION OFFICER)
25-MAY-04 06:28 (757)8365212
GEORGIA EMERGENCY MNGMT AGENCY (PRIMARY)
25-MAY-04 06:28 (404)6357200

ADDITIONAL INFORMATION

THE CALLER WILL NOTIFY STATE AND EPA. DUE TO THE INTENSITY OF THE FIRE THE CALLER STATED THAT THEY WERE UNABLE TO ASCERTAIN THE IMPACT TO NEARBY WATERWAYS. LOCAL FIRE OFFICIALS HAVE EVACUATED EVERYONE NEARBY THE FACILITY, BUT THE CALLER DID NOT KNOW HOW MANY PEOPLE THIS WAS, OR HOW LARGE AN AREA WAS BEING EVACUATED. DUE TO THE HIGH HEAT AND HUMIDITY THE CALLER EXPECTED THE PLUME TO REMAIN FOR A WHILE. PRECISE WIND SPEED AND AIR TEMPERATURE WERE UNKNOWN.

*** END INCIDENT REPORT # 722896 ***

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Spill Summary Report for NRC Report #723019

Report Date: 9/21/2018

Report Time: 12:59 PM EDT

Region IV Hotline Log Entry Information

Data ID: 17512

Date Of Report: 26-MAY-04

NRC #: 723019

State #:

ERNS #:

Material Type:

Receiver:

Material / Amount:

HYDROCHLORIC ACID / 0 UNKNOWN AMOUNT

Location:

City: CONYERS

County: ROCKDALE

State: GA

Source of Pollution:

BIO-LABS INC.

Water Body:

VFW LAKE/ WALKER LAKE

State Or EPA Responded:

Initial EPA Action:

Status:

URL:

NRC Spill Report

NATIONAL RESPONSE CENTER 1-800-424-8802

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Incident Report # 723019

INCIDENT DESCRIPTION

*Report taken by: MST3 JOSHUA PAULUS at 05:19 on 26-MAY-04

Incident Type: FIXED

Incident Cause: UNKNOWN

Affected Area: VFW LAKE/ WALKER LAKE

The incident occurred on 25-MAY-04 at 04:25 local time.

Affected Medium: WATER VFW LAKE/ WALKER LAKE

REPORTING PARTY

Name: DONNA MAJEWSKI

Organization: BIO-LABS INC.

Address: EXT 8527

CONYERS, GA 30012

BIO-LABS INC. called for the responsible party.

PRIMARY Phone: (770)4832600

INCIDENT LOCATION

1700 OLD COVINGTON HWY County: ROCKDALE

City: CONYERS State: GA Latitude: 33 Degrees 39' 27" N

Longitude: 84 Degrees 0' 33" W

BIO-LAB

RELEASED MATERIAL(S)

CHRIS Code: HCL Official Material Name: HYDROCHLORIC ACID

Also Known As:

Qty Released: 0 UNKNOWN AMOUNT

Qty in Water: 0 UNKNOWN AMOUNT

DESCRIPTION OF INCIDENT

AS AN UPDATE TO REPORT NUMBER 722896, A WAREHOUSE FIRE INVOLVING POOL CHEMICALS TAKEN ON 25MAY2004. RESULTING FROM THE FIRE EXTINGUISHING WATER, THE RUNNOFF WATER FRIN THE WAREHOUSE HAS IMPACTED 2 NEARBY LAKES. VFW LAKE AND WALKER LAKE. AT THE TIME OF THE INCIDENT NO MATERIAL HAD ENTERED THE LAKES. THE RP IS ATTEMPTING TO TREAT THE RUNNOFF PRIOR TO ITS ENTERING THE WATER SO AS TO BRING THE Ph LEVELS BACK TO NORMAL.

INCIDENT DETAILS

Package: N/A
Building ID:
Type of Fixed Object: WAREHOUSE
Power Generating Facility: NO
Generating Capacity:
Type of Fuel:
NPDES:
NPDES Compliance: UNKNOWN

---WATER INFORMATION---

Body of Water: VFW LAKE/ WALKER LAKE
Tributary of:
Nearest River Mile Marker:
Water Supply Contaminated: NO

REPORTING PARTY

Type of Organization: PRIVATE ENTERPRISE

SUSPECTED RESPONSIBLE PARTY

Name: DONNA MAJEWSKI
Organization: BIO-LABS INC.
Address: EXT 8527
CONYERS, GA 30012
PRIMARY Phone: (770)4832600
Type of Organization: PRIVATE ENTERPRISE

IMPACT

Fire Involved: NO Fire Extinguished: UNKNOWN
INJURIES: NO Hospitalized: Empl/Crew: Passenger:
FATALITIES: NO Empl/Crew: Passenger: Occupant:
EVACUATIONS: UNKNOWN Who Evacuated: Radius/Area:
Damages: NO

<u>Closure Type</u>	<u>Description of Closure</u>	<u>Hours Closed</u>	<u>Direction of Closure</u>
Air:	N		
Road:	N		Major Art N
Waterway:			
Track:	N		

Passengers Transferred: UNKNOWN
Environmental Impact: UNKNOWN

Media Interest: NONE Community Impact due to Material: NO

REMEDIAL ACTIONS

THE RUNOFF IS BEING TREATED PRIOR TO ENTERING THE WATERWAY
Release Secured: NO
Release Rate:
Estimated Release Duration:

WEATHER

ADDITIONAL AGENCIES NOTIFIED

Federal:
State/Local:

State/Local On Scene:

State Agency Number:

NOTIFICATIONS BY NRC

U.S. EPA IV (PRIMARY)

26-MAY-04 05:29 (404)6504955 R4DUTYOSC

NOAA 1ST CLASS BB RPTS FOR GA (PRIMARY)

26-MAY-04 05:28 (206)5266344

NATIONAL RESPONSE CENTER HQ (PRIMARY)

26-MAY-04 05:33 (202)2672100 NRCDO

GEORGIA EMERGENCY MNGMT AGENCY (PRIMARY)

26-MAY-04 05:28 (404)6357200

ADDITIONAL INFORMATION

CALLER HAD NO ADDITIONAL INFORMATION.

*** END INCIDENT REPORT # 723019 ***

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**U.S. ENVIRONMENTAL PROTECTION AGENCY
FINAL POLLUTION REPORT**

Date: June 28, 2004

From: Benjamin Franco, OSC
US EPA Region IV

To: Shane Hitchcock, Branch ChiefERRB
Regional Response Center, 4WD-ERRB
Gary Andrew, GAEPD

I. GENERAL SITE INFORMATION

Site Name: Bio-Labs Chemical Fire.
Street Address: 1700 Old Covington Hwy.
City, County, State, Zip code: Conyers, Rockdale County, Georgia
Latitude and longitude: N 33° 39' 27" W 84° 0' 33"
Site Id: A4EY
State Notification: GA EPD
Incident Category: CERCLA Emergency Response
Start Date: May 25, 2004
Demobilization Date: May 26, 2004
Responding FOSCs: Ben Franco/Rick Jardine

n BACKGROUND INFORMATION

On 5/25/04 a fire broke out at the Bio-Labs, Inc., Chemical Company warehouse at approximately 0415 hours (NRC report # 722896). The warehouse contained approximately 12.5 million pounds of pool chemicals and oxidizers. The Rockdale County EMA director evacuated businesses nearby and ordered voluntary evacuations in a 1.5 mile area bounded by Sigma Rd and Hwy 138. Close to 500 people were evacuated and sought shelter at House Elementary and Heritage High School.

III. RESPONSE INFORMATION

Air Monitoring

During the period of 25MAY04 through 26MAY04 EPA conducted air monitoring using single point monitors, a chlorine and hydrogen cyanide monitor. EPA monitored for Hydrogen Bromide, Chlorine, Phosgene, Hydrogen Chloride, and



10114940

Hydrogen Cyanide. A representative for the Agency of Toxic Substances and Disease Registry (ATSDR) recommended action levels for HBR, HCL, and Chlorine at 3.0 ppm and the Phosgene levels were for 1 ppm.

25MAY04

Two air monitoring teams were formed and they were led by OSC Jardine and was comprised of EPA contractors. One team went along I-20 and monitored for the above mentioned chemicals. They concentrated their efforts in the I-20 area that was closed by DOT and the immediate area near the facility. The sampling team found no levels of the chemicals being monitored on I-20, especially near exit 93. The air monitoring data was presented to DOT and the interstate was opened at 1500hrs. Police officers were staged nearby in case the plume shifted and required the immediate closing of the interstate.

A second team concentrated their efforts in the immediate area of the facility and along areas that were evacuated. The highest values found were:

Sample Time	Date	Address	Chemical (ppm)
1410	05/25/04	VFW Driving towards 3 rd Ave by VFW Lake	Cl: 1.48
1421	05/25/04	Olympic culdesac	HBR: 1.2 Cl: .17
1422	05/25/04	Blacklawn Rd behind BioLab	HBR: 9.0 Cl: 1.5
1428	05/25/04	Blacklawn Rd behind BioLab	HBR: 5.4 Cl: 1.5
1646	05/25/04	Rockdale Ind. Blvd	HBR: 4.1
1647	05/25/04	Rockdale Ind. Blvd.	HBR: 9
1747	05/25/04	Lester Rd	HBR: 9

These areas had already been evacuated and police officers were restricting access to it.

EPA's ASPECT aircraft was dispatched and commenced monitoring around 1400 hrs. Their equipment did not identify elevated of chlorine or HCL in the plume. This could be because the equipment may not be sensitive enough to detect very low levels.

On the evening of 25MAY04, EPA dispatched members of the US Coast Guard Gulf Strike Team to the Rockdale Hospital and performed air monitoring through the night. The Hospital requested this through the Rockdale County EMA director. There was a concern that the change of atmospheric conditions (slower wind speeds and lower temperatures) may cause the plume to stay close to the ground during the night.

Fire Fighting Operations

The environmental contractor for Biolab, Hulcher, rented excavators and knocked down one of the warehouse's walls. This allowed fire fighting personnel to flood the area with huge amounts of water.

26MAY04

EPA continued air monitoring operation through the night and concentrated our efforts in the outer areas of the evacuation. At 0500 hrs, OSC Spurlin met with the County EMA director Jeff Wigginton and presented our air monitoring results. The County EMA director decided to lift the evacuations for nearby residents. Businesses near the BioLab facility were maintained closed. During the afternoon of the 26MAY04, EPA and an environmental contractor for BioLab continued monitoring the air in the area adjacent to the site. Detectable chlorine levels were found by EPA on the BioLab fence line and at several businesses nearby (Diversitec and Viasys). Those levels, .28 ppm, were below the chlorine evacuation action levels of 3 ppm. At this point EPA recommended that the evacuation can be lifted for the rest of the businesses in the area with the following conditions: Biolab will monitor the air inside buildings before employees can enter them and Biolab will continue to perform perimeter monitoring on the fence line and warn businesses in the area if air levels are above EPA action levels. By 1800 hrs, the emergency response had finished and it turned to a recovery effort. The Fire Department was basically looking for hot spot and flooding them with water.

Water Runoff

The environmental contractor for BioLab tried to control the run off by recovering the runoff using pumps and putting it in frac tanks. Close to 25 million gallons of water was spent fighting the fire. The Georgia Environmental Protection Division took the lead investigating water runoff problems. Unfortunately, runoff control could not avoid impacting the VFW Lake and a sizeable fish kill was found on 27MAY04. GAEPD investigated the impacts of the runoff on the lake and is working closely with BioLab on its restoration.

Planned Removal Actions

The State will take the lead on overseeing the clean up actions at the BioLab facility and water run off areas.

Next Steps

EPA is in the process of preparing a final report that will include all the air monitoring data. This should be done in the next month.

IV. CONTRACTOR INFORMATION AND ESTIMATED COSTS

A. Contractor Information

CONTRACTOR	DO NUMBER	POP START	POP END	DO AMOUNT
START		25MAY04		\$25,000
USCG GST		25MAY04	27MAY04	\$25,000
TOTAL: \$50,000				

B. Estimated Costs

Extramural:

START: \$25,000

USCGGST: \$25,000

Total Estimated Extramural Costs: \$50,000

Intramural:

EPA Direct Costs: \$5,000

EPA Indirect Costs

TOTAL SITE COSTS: \$55,000

These figures should not be used to support or dispute any legal action regarding this removal.

V. DISPOSITION OF WASTES

Collected water runoff from the firefighting operation will be disposed by BioLab.

VI. ROSTER OF AGENCIES/ORGANIZATIONS ASSISTING IN REMOVAL

Org./Agency, Address	Primary Contact	Phone Number	Role/Activity
USEPAR4	Benjamin Franco	404-562-8758	OSC
	Rick Jardine	404-562-8764	OSC
GAEPD	Gary Andrew	404-656-6907	Manager

VII. LESSONS LEARNED: None



Tetra Tech EM inc.

Northmont Business Park • 1955 Evergreen Boulevard, Suite 300 • Duluth, GA 30096 • (678) 775-3080 • FAX (678) 775-3138

August 4, 2004

Mr. Benjamin Franco
On-Scene Coordinator
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW, 11th Floor
Atlanta, Georgia 30303

**Subject: CERCLA Emergency Response Action Report
Bio-Labs, Inc.
Conyers, Rockdale County, Georgia
EPA Contract No. 68-W-00-120
TDD No. 4T-04-05-B-006**

Dear Mr. Franco:

The Tetra Tech EM Inc. (TtEMI) Superfund Technical Assessment and Response Team (START) is submitting five electronic copies of the CERCLA Emergency Response Action Report detailing activities conducted at Bio-Labs, Inc. This report summarizes field activities conducted at the site during the emergency response on May 25-26, 2004.

If you have any questions or need additional copies of the report, please contact me at (678) 775-3083 or Steve Pierce at (678) 775-3100.

Sincerely,

Neil Daniell, MS
START Project Manager

Enclosures (2)

cc: Matthew Monsees, EPA Project Officer
Don Rigger, EPA Emergency Response Section Chief (letter only)
R. Steve Pierce, START Leader (letter only)
John Mitchell, START Emergency Response Team Leader (letter only)
START File



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CERCLA EMERGENCY RESPONSE ACTION REPORT
BIO-LABS, INC.
CONYERS, ROCKDALE COUNTY, GEORGIA
EPA CONTRACT NO. 68-W-00-120
TDDNO. 4T-04-05-B-006

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 4, Emergency Response and Removal Branch
61 Forsyth Street, SW, 11th Floor
Atlanta, Georgia 30303

Prepared by



Tetra Tech EM Inc.
Superfund Technical Assessment and Response Team Region 4
1955 Evergreen Blvd, Suite 300
Duluth, Georgia 30096

**CERCLA EMERGENCY RESPONSE ACTION REPORT
BIO-LABS, INC.
CONYERS, ROCKDALE COUNTY, GEORGIA**

Revision 0

Prepared for

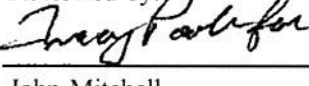
**U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 4
Atlanta, Georgia 30303**

Contract No.	:	68-W-00-120
TDD No.	:	4T-04-05-B-006
Date Prepared	:	August 4, 2004
EPA Task Monitor	:	Ben Franco
Telephone No.	:	(404) 562-8743
Prepared by	:	Tetra Tech EM Inc.
START Project Manager	:	Neil Daniell
Telephone No.	:	(678) 775-3083

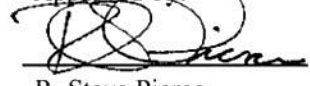
Prepared by:


Neil Daniell
START Project Manager

Reviewed by:


John Mitchell
START Technical Reviewer

Approved by:


R. Steve Pierce
START Leader

CONTENTS

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION.....	1
2.0 SITE BACKGROUND.....	1
3.0 EMERGENCY RESPONSE ACTIVITIES.....	4
4.0 CONCLUSIONS.....	7

Appendix

A	LOGBOOK
B	PHOTOGRAPHIC LOG
C	TABLE OF WITNESSES
D	AIR MONITORING DATA

FIGURES

<u>Figure</u>	<u>Page</u>
1	SITE LOCATION MAP.....
2	SITE LAYOUT MAP.....

1.0 INTRODUCTION

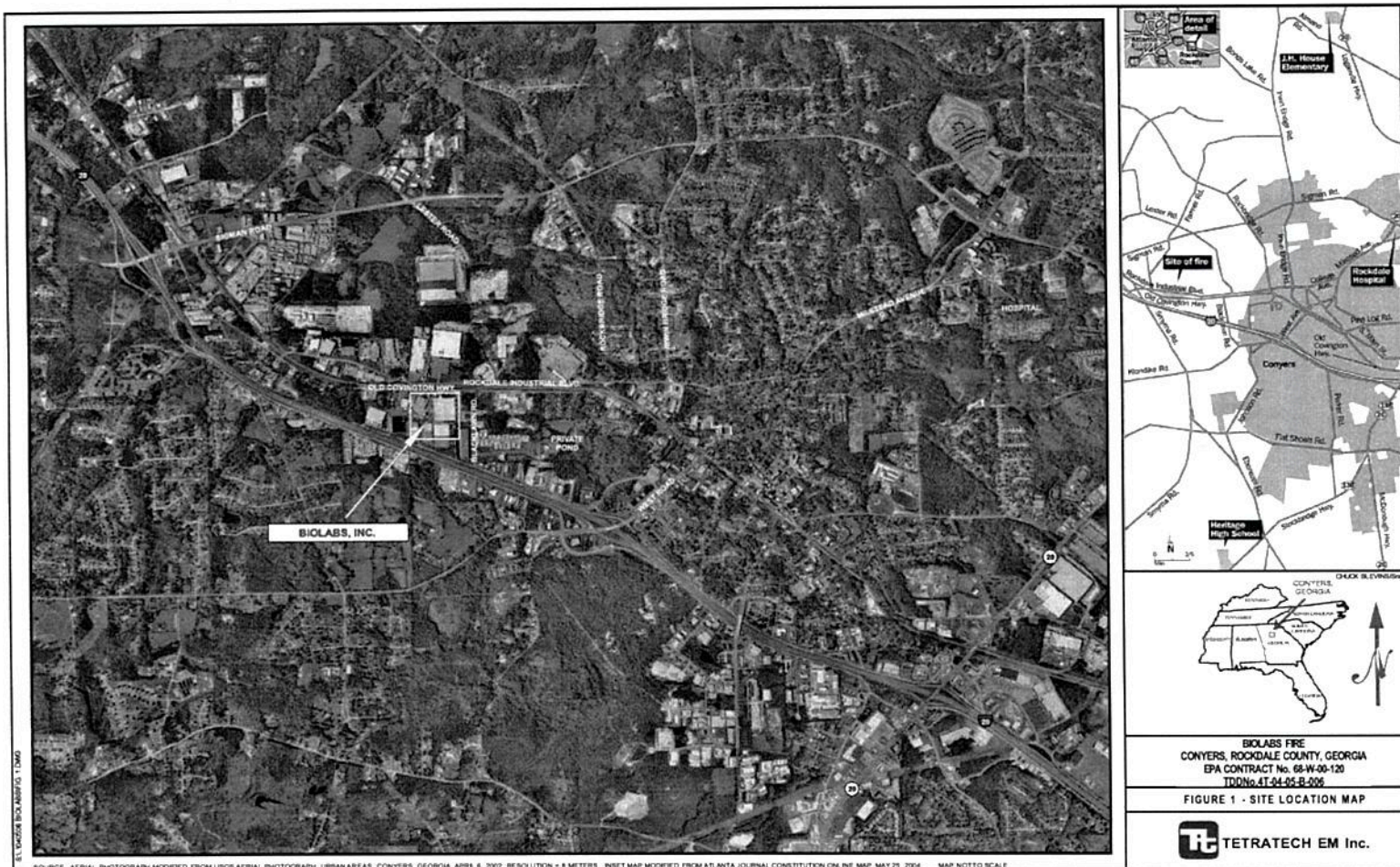
This report has been prepared under the provisions of Technical Direction Document (TDD) No. 4T-02-07-B-006, which the U.S. Environmental Protection Agency Region 4 (EPA) assigned to the Tetra Tech EM Inc. (TtEMI) Region 4 Superfund Technical Assessment and Response Team (START) under contract No. 68-W-00-120. The overall scope of this TDD, monitored by On-Scene Coordinator Benjamin Franco, was to provide technical assistance during emergency response activities at the Bio-Labs, Inc., fire near Conyers, Rockdale County, Georgia. Specific elements of the TDD included providing air monitoring, conducting multimedia sampling, documenting on-site conditions and activities with logbook notes (Appendix A) and photographs (Appendix B), and preparing a final report.

2.0 SITE BACKGROUND

Bio-Labs, Inc. (Bio-Labs), is a pool and spa care company located in Conyers, Georgia, about 30 miles east of Atlanta (see Figure 1). Site-specific geographic coordinates are latitude 33° 39'27" north and longitude 84° 0'33" west (Appendix D); the local address is 1700 Old Covington Highway, Conyers, Rockdale County, Georgia. On May 25, 2004, a fire broke out in Plant 14 Warehouse (Figure 2), a building that housed approximately 12.5 million pounds of pool chemicals and oxidizers (Federal Emergency Management Agency [FEMA] National Situation Report, May 26, 2004) (EPA Region 4 Pollution Report, Final) (see Figure 2). The local Rockdale County fire department responded to the blaze after a local police officer contacted the police dispatch.

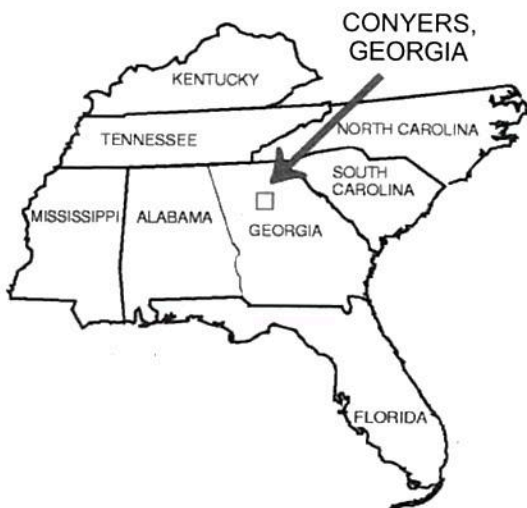
Local authorities implemented a mandatory evacuation of residences and businesses within a 1.5-mile radius of the incident and urged voluntary evacuation of residents north of US Interstate 20 (I-20). Secondary roads adjacent to and leading into the affected area were closed, and I-20 was opened and closed intermittently as winds shifted. The Georgia Emergency Management Agency (GEMA) notified 21 counties in northeast and central Georgia about the plume and advised of them of plume modeling and air monitoring results. Temporary flight restrictions were put into effect by the Federal Aviation Administration.

GEMA, Environmental Protection Division (EPD) of the Georgia Department of Natural Resources, EPA, and the Agency for Toxic Substances and Disease Registry (ATSDR) responded to the scene (Appendix C). EPA contacted TtEMI START and requested that they responded to the scene to provide air monitoring and technical assistance.





APPROXIMATE SCALE
1 inch = 2,346 feet



SOURCE: MODIFIED FROM USGS AERIAL PHOTOGRAPH:
URBAN AREAS, ATLANTA, GEORGIA, APRIL 6, 2002.
RESOLUTION = 2 METERS.

BIOLABS FIRE
CONYERS, ROCKDALE COUNTY, GEORGIA
EPA CONTRACT No. 68-W-00-120
TDD No. 4T-04-05-B-006

FIGURE 1 - SITE LAYOUT MAP

Tt TETRA TECH EM Inc.

3.0 EMERGENCY RESPONSE ACTIVITIES

At the request of EPA, TtEMI START responded to the fire at the Bio-Labs facility on May 26, 2004. Team member Neil Daniell arrived at the scene at approximately 0845 hours and met with OSC Franco and OSC Rick Jardine. The OSCs briefed TtEMI START on the situation, and START Daniell began coordinating and mobilizing START resources for the response. A second TtEMI START team consisting Alan Whitt and Rich Kaiser arrived at the scene approximately 30 minutes later. The group briefly discussed site activities and began calibrating air monitoring equipment necessary to provide air monitoring support. Donna Majewski, Bio-Labs corporate representative, indicated that possible airborne contaminants were chlorine, hydrochloric acid, and hydrogen bromide. However, Ms. Majewski suspected that hydrogen bromide might not be present because the portion of the plant that should have contained bromide compounds had burned earlier in the morning.

TtEMI START performed both general and contaminant-specific air monitoring. General air monitoring was conducted using a Draeger MiniWarn 4-gas meter. The 4-gas meter measures percent oxygen, percent lower explosive limit (LEL), hydrogen sulfide, and carbon monoxide. TtEMI START conducted contaminant-specific air monitoring using MDA Scientific single-point monitors (SPM). SPMs were used to measure chlorine and hydrochloric acid.

Initial air monitoring of the plume was conducted by two teams because of the size of the plume and the need to find the outer reaches of the plume. The plume direction during initial air monitoring (1050 hours) was east and parallel to I-20 on the south and Old Covington Highway to the north. START Whitt and Kaiser, along with OSC Jardine, formed Team 1 and mobilized eastward down I-20 toward the eastern edge of the plume. Team 1 monitored for percent oxygen, percent LEL, hydrogen sulfide, carbon monoxide, chlorine, and hydrochloric acid. START Daniell formed Team 2 and mobilized eastward down Old Covington Highway toward the downtown district of Conyers and the evacuated areas. Team 2 monitored for chlorine.

The results of the initial monitoring indicated that hazardous atmospheres were not present outside of the visible plume (Table 1, Appendix D). Oxygen, percent LEL, hydrogen sulfide, and carbon monoxide were not detected at levels of concern. Team 1 did not detect chlorine or hydrochloric acid at any point along the eastern edge of the plume, beginning at Georgia Highway 20 and moving eastward to Georgia Highway 11. Team 1 also did not detect chlorine or hydrochloric acid along the southern edge of the plume and south of I-20. Team 2 found that chlorine gas was present in the plume above the NIOSH recommended exposure limit (REL). The REL for chlorine was exceeded along Old Covington Highway near Blacklawn Road. However, chlorine gas was not detected above the REL between West Road and Georgia Highway 20.

After the initial air monitoring results, the air monitoring teams returned to the staging area and met with a TtEMI START DiDi Fung and Bess Blyler (Team 3) at approximately 1300 hours. START Blyler and Fung brought additional EPA equipment that could be used to detect other compounds in the plume. The teams discussed the results of the initial sampling episode and decided to expand the search for other compounds based on compounds known to be present in the facility. Also, the group decided to concentrate air monitoring activities on the areas closest to the facility due to minimal levels detected beyond West Road.

TtEMI START calibrated the additional air monitoring equipment and set up six SPMs to monitor for hydrogen bromide, phosgene, hydrochloric acid, and chlorine. Team 2 and Team 3 combined to monitor the plume near the facility for hydrogen bromide, phosgene, hydrochloric acid, and chlorine. Team 1 went to check on a complaint in a nearby county and monitored for hydrochloric acid and chlorine. During the second monitoring event, the plume direction was initially east of the facility and then shifted toward the northeast. The thickest portion of the plume was initially near Blacklawn Road and 3rd Avenue SW, and the plume later migrated toward Lester Road and Rockdale Industrial Boulevard.

The results of the second air monitoring event indicated that hazardous concentrations were present in the plume (Appendix D). In the thickest portions of the plume, TtEMI START detected hydrogen bromide, and hydrochloric acid at concentrations above the PEL, and chlorine was detected at concentrations above the short-term exposure limit (STEL). Phosgene was detected by TtEMI START but at concentrations lower than the PEL. In the thinner portions of the plume, chlorine gas was detected at levels less than the REL. Outside of the plume, TtEMI START did not detect any compounds; however, the group noted a chlorine odor even when the levels were well below the PEL, thus indicating a low odor threshold for chlorine. No compounds were detected south of I-20 or between West Road and Georgia Highway 20, and Team 1 did not detect any compounds in the adjacent county. In addition, no compounds were detected at the Rockdale County Hospital and TtEMI START detected along Milstead Avenue.

During the second air monitoring event, runoff water was observed flowing from the Bio-Labs facility and into a storm water drain along Blacklawn Road (Figure 2). TtEMI START tested the water with pH paper and found the pH to be approximately zero. The outfall of the storm water drain was traced to a private pond on VFW Drive (Figure 2). Water flowing into the pond had a pH of zero (west side of VFW), and water in the pond had a pH of approximately 4 to 5. Further into the pond, the water had a pH of approximately 6. EPA and EPD were notified of the situation.

As night approached, support equipment and personnel were brought in to assist with air monitoring. The new equipment included single-gas monitors to detect hydrogen sulfide, hydrogen cyanide, and chlorine.

Cooler temperatures tend to cause vapors to linger closer to the ground, so TtEMI START expanded the air monitoring search based on data published in the Canadian Builders Digest, CBD-144, Toxic Gases and Vapours Produced at Fires. In addition, the U.S. Coast Guard (USCG) Gulf Strike Team (GST) was brought in to assist with air monitoring.

TtEMI START calibrated the additional air monitoring equipment and set up six SPMs to monitor for hydrogen bromide, phosgene, hydrochloric acid, and chlorine. Specific areas monitored during the third air monitoring event included the Rockdale County Hospital, Highway 138 North, Highway 20 North, House Elementary School, Lakeview Estates, and the Rocky Ridge Road area. These locations were discussed during an incident command conference call with EPA, GEMA, the Centers for Disease Control, and health department personnel. Teams 1, 2, and 3 combined to monitor north of Sigman Road and in the area that the plume was predicted to migrate. The USCG GST was stationed at the Rockdale County Hospital throughout the night. During the third monitoring event, the plume direction continued to be northeast of the facility, and the thickest portion of the plume was located near Lester Road and Rockdale Industrial Boulevard.

The results of the third air monitoring event indicated that no hazardous gases were present north of Sigman Road (Appendix D). However, hazardous concentrations continued to be present in the plume but at levels lower than previously detected. In addition, fewer compounds were detected inside the plume. In the thickest portions of the plume, TtEMI START detected chlorine at concentrations above the REL and hydrogen cyanide above the National Institute of Occupational Safety and Health (NIOSH) recommended exposure limits (REL). Hydrogen sulfide was detected in the plume at concentrations greater than three times background levels, but below the REL.

During the early morning hours of May 26, 2004, concern was raised about communities east of Conyers. The plume direction had begun to migrate to the east, so monitoring efforts were shifted eastward toward Covington. The results of the air monitoring in the Covington area indicated that chlorine was present at levels near the PEL. However, no other compounds were detected.

On the morning of May 26, 2004, TtEMI START did a sweep of both areas (east and northeast of the facility) impacted by the plume. The results of the monitoring efforts indicated that low levels of chlorine and hydrogen cyanide were east of the Bio-Labs facility along Blacklawn Road. No compounds were detected along VFW Drive, and no compounds were detected north of Old Covington Highway. In addition, no compounds were detected along Highway 20 or in the neighborhoods west of Highway 20.

After the air monitoring sweep was completed, EPD requested that air monitoring be done along the private pond and the outfall from the pond. A major fish kill had resulted from the runoff entering the pond, and EPD was overseeing sampling of the pond. TtEMI START mobilized to the area and began air monitoring for hydrogen cyanide, hydrogen bromide, hydrogen chloride, chlorine, and phosgene. The results of the air monitoring event found that no compounds were present around the pond or along the outfall from the pond. Upon completion of air monitoring around the pond and the outfall, TtEMI START demobilized from the site.

According to the National Oil and Hazardous Substances Contingency Plan (NCP), 40 CFR 300.415 (b)(1), at any release where the lead agency determines that the release poses a threat to public health or welfare or the environment, the lead agency make take any appropriate removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or the threat of release. Based on 40 CFR 300.415 (b)(1) and the analytical data collected for this site, future work at the Bio-Labs site may occur at the discretion of EPA's **OSC**.

4.0 CONCLUSIONS

On the morning of May 25, 2004, Plant 14 Warehouse on the Bio-Labs facility in Conyers, Georgia, caught fire. Local authorities implemented a mandatory evacuation for residences and businesses within a 1.5-mile radius of the incident and urged voluntary evacuation of residents north of US Interstate 20 (I-20). GEMA, Georgia EPD, EPA, and ATSDR responded to the scene, and EPA requested that TtEMI START provide air monitoring and technical assistance.

Tetra Tech mobilized to the Bio-Labs site and provided 35 hours of continuous support for the emergency response. Initial air monitoring of the plume was conducted by two teams because of the size of the plume and the need to find the outer reaches of the plume. The results of the initial monitoring indicated that hazardous atmospheres were not present outside of the visible plume. Chlorine gas and hydrochloric acid vapors were not detected at any point along the eastern edge of the plume, beginning at Georgia Highway 20 and moving eastward to Georgia Highway 11. TtEMI START also did not detect chlorine and hydrochloric acid along the southern edge of the plume or south of I-20. Chlorine gas was present in the plume above the OSHA PEL and above the STEL in the immediate area of the facility. The PEL was exceeded between West Road and the facility, and the STEL was exceeded in a valley along VFW Drive near 3rd Avenue SW. However, chlorine gas was not detected between West Road and Georgia Highway 20.

After the initial air monitoring results, TtEMI START brought in additional EPA equipment that could be used to detect other compounds in the plume. The teams discussed the results of the initial sampling episode and decided to expand the search for other compounds based on compounds present in the facility. The results of the second air monitoring event indicated that hazardous concentrations were present in the plume. In the thickest portions of the plume, TtEMI START detected hydrogen bromide, chlorine, and hydrochloric acid at concentrations above the PEL. Phosgene was detected by TtEMI START but at concentrations below the PEL. Only low levels of chlorine were detected immediately outside of the plume, and the level of chlorine detected was not above the PEL. No compounds were detected by TtEMI START south of I-20, at the Rockdale County Hospital, between West Road and Georgia Highway 20, or in the adjacent county.

During the second air monitoring event, runoff water was observed flowing from the Bio-Labs compound and into a storm water drain along Blacklawn Road. The outfall of the storm water drain was traced to a private pond on VFW Drive, where the water flowing into the pond had a pH of zero (west side of VFW) and water in the pond had a pH of approximately 4 to 5. TtEMI START notified EPA and the Georgia EPD of the situation.

During the early morning hours of May 26, 2004, concern was raised about communities east of Conyers. The results of the air monitoring in the Covington area indicated that chlorine was present at levels near the PEL. However, no other compounds were detected. On the morning of May 26, 2004, TtEMI START did a sweep of both areas (east and northeast of the facility) impacted by the plume and found low levels of chlorine and hydrogen cyanide east of the Bio-Labs facility along Blacklawn Road. No compounds were detected along VFW Drive, and no compounds were detected north of Old Covington Highway. In addition, no compounds were detected along Highway 20.

After the air monitoring sweep was completed, EPD requested that air monitoring be done along the private pond and the outfall from the pond. TtEMI START mobilized to the area and began air monitoring for hydrogen cyanide, hydrogen bromide, hydrogen chloride, chlorine, and phosgene. The results of the air monitoring event found that no compounds were present around the pond or along the outfall from the pond. Upon completion of air monitoring around the pond and the outfall, TtEMI START demobilized from the site. Based on 40 CFR 300.415 (b)(1) and the analytical data collected for this site, future work at the Bio-Labs site may occur at the discretion of the EPA OSC.

APPENDIX A
LOGBOOK NOTES
(17 Pages)

CONTENTS

PAGE REFERENCE IWE

START personnel 5/25/04

- Aaron Whitt
- Rich Kaiser
- Neil Daniell
- Didi Fung
- Bees Blyler
- Tiffany Messier
- Charlie Parker

"Rite in the Rain"
ALL-WEATHER WRITING PAPER



ALL-WEATHER HORIZONTAL LINE BOOK

Name Synopsis Chemical Fire
"Biotop"

Address _____

Phone _____

Project _____

This book is printed on "Rite in the Rain" All-Weather Writing Paper - A unique paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

Specifications for this book:

Page Pattern		Cover Options	
Left Page	Right Page	Polydura Cover	Hardboard Cover
Lined	Lined	Kent No. 390M	Item No. 390NF

0925 NEW DANIEL ARCADE QNS.W

0945 ARRIVE @ BIO LAB FIVE

OWNERS R, GRANT LAKES CHURCH

@ CAMPUS B.A.

SPM FOR CL & HCL

WILL split-up to monitor

2 locations. Set-up PM Suite
for chloroform & HCL

1050 BACKGROUND 0.00 ppm HCL &
CHLOROF. LCL 0.0 %
O₂ 20.50%, CO 0.0 ppm
H₂S 1.0 ppm. ~~ENTRANCE TO~~
ENTRANCE TO I-20 & TO
BIOEN ~~MONITORING~~

1055 DOWN RUTHERFORD TO DRIVE
I-20 E. BEEN MONITORING

EXIT 90 - MONITORING BACK-
GROUND ON RTH INSTRUMENTS
EXIT #82 - BACKGROUND ON ALL
INSTRUMENTS

11:02 STATIONARY READING AT

Will Daniel

20.6 % O₂; LCL 0.0, H₂S

1.0 ppm HCL & CL - 0.02 ppm

GPS COORDINATES: 33° 37' 20" N

084° 04' 45" WEST

1107 MOVING (HOT SPOTS)

1113 STATIONARY 33° 37' 42" N

093 SC 55 W

ALMOND R. 0.0 LCL 240 % O₂

3.0 ppm CO 1.0 ppm H₂S

0.0 ppm CHLOROF & HCL

MOVING TO EXIT #98

1121 EXIT #90 STATIONARY REMAINING

LCL 0.0 O₂ - 20.7, CO - 0.0

H₂S - 0.0; HCL & CHLOROF -

0.0 ppm.

33 36 34 N - 093 53 02 W

CONTINUING TO EXIT #98

1131 EXIT #98

0.0 - LCL O₂ - 20.5

CO - 0.0 ppm H₂S - 0.0 ppm

HCL & CL - 0.0 ppm

GPS 33 36 40 N 093 45 50 W

Removes Full Face. Atmosphere
is clearing. Moving to
Exit #101

1039 - Relay Readings (EPA - Rock)
DOT @ Exit #98 before move
to Exit #101

1042 Stationary Readings (Exit #101)
LCL-0.0 O₂-20.7 CO₂-3.0
H₂S-0.0; HCL & CL-0.0 ppm
GPS: 33° 36' 34" N; 083° 41' 58" W

1202 Heading East on I-20
to Madison. Will complete
investigation & take further
readings

Hit Rest Area

1210 Back on the Road - continue
on I-20 East to Madison

1220 Arrive on Madison (Exit #113)
Longway Convalescent Home @
GA 83 5-20
Readings:
LCL-0.0 O₂-20.9

CO-0.0 ppm H₂S-0.0 ppm
HCL & CL-0.0
GPS L: 33° 35' V f AT
083° 30' 02" W

EPA (Rock) takes Cond Cell at this
time. EPA purchases Maps
Stops Employee Reporting Order Earlier This A.M.
No Order at this time

1237 Downtown Madison - Readings:
LCL-0.0; O₂-20.9, CO-0.0, H₂S-0.0
HCL & CL-0.0 ppm
GPS: 33° 36' 37" N; 083° 22' 15" W
EPA (Rock) ok Convalescent Cell

1254 Head to Residence 1386 Cedar Dr.
TO INVESTIGATE INDIVIDUAL COMPLAINT
FROM EARLY A.M.

1302 Arrive @ 1386 Cedar Dr.
Readings: LCL-0.0; O₂-20.9, CO-0.0 ppm
H₂S-0.0 ppm; HCL & CL-0.0 ppm
GPS: 33° 22' 24" N, 083° 22' 10" W

1304 Depart 1386 Cedar Dr.

1312 Return to EPA (Rock) - Decides
to Head Back to Convalescent Home
J. M. Donnell

imSEU - Bank I-20 Roadblock @

Exit #88

LSC-0.0; O₂-20.9 CO-0.0 ppm

H₂S-0.0 ppm HCL & CL-0.0 ppm

GPS-33 36 45 N, 083 44 43 W

Partly ~~cloudy~~ Hazy & Hot

1411 Exit #84 on I-20 West

Readings (Stationary)

LSC-0.0; O₂-20.9 CO-0.0 ppm

H₂S-0.0 ppm HCL & CL-0.0 ppm

GPS: 33 38 09 N; 083 38 32 W

CONTINUE W TOWARD COMMING POST.

1420 Exit #80 @ I-20 W

STATIONARY READINGS:

LSC-0.0; O₂-20.9 CO-2 ppm

H₂S-0.0 ppm HCL & CL-0.0 ppm

GPS: 33 39 34 N; 084 01 17 W

1424 STATIONARY READINGS

LSC-0.0 O₂-20.9 CO-2 ppm

H₂S-0.0 ppm

HCL & CL-0.0 ppm

GPS 33 40 08 N; 084 02 28 W →

CONTINUED TO COMMING POST

1430 BACK @ COMM. POST. AWAITING

NEW/ADDITIONAL INSTRUCTIONS

EQUIPMENT: SPM mfg by: ANDA Scientific

1433 BEGIN NEW MONITOR MISSION

~~1544~~ HCL & CL-0.0 ppm

1446 GPS: 33 40 31 N

084 02 16 W

CL-0.24 ppm

~~1544~~ HCL 2.20 ppm

1448 CL-0.41 ppm

GPS 33 40 27 N

084 02 07 W

1450

~~1544~~ GPS: 33 40 27 N

084 01 48 W

HCL 0.0 CL-0.08 ppm

John D. [Signature]

HCL 0.00 ppm
CL 0.12 ppm

1658 GPS: 33°40'28"N
084°02'18"W
CL 0.00 ppm
HCL 0.0 ppm

1700 33°40'38"N
084°02'22"W
CL - 0.17 ppm
HCL 0.90 ppm

MISSION #3

1750 GPS: 33°40'37"N 84°02'18"W
HCL 0.5.7 (1.5+)
CL 0.61 0.95 (1.50+)

1753 HCL 15.0+ ppm
CL 15.0 + 1.50+ ppm
GPS: 33°40'28"N
084°02'25"W

Small Sample

CL 0.08 ppm
HCL 0.0 ppm

1496 ^{Rock} Bridge rd (fence co.)

1818 GPS: 33°40'20"N 084°01'42"W
CL: 0.0 ppm
HCL: 0.0 ppm
Hatched & Rock 25000

1829 GPS:
CL 0.0 ppm
HCL 0.0 ppm

1840 Discovered Low pH runoff
33°40'17"N
084°02'23"W

Blackleg rd. ^{Rock} to Biology Faculty
Water rd Across Park Lot, Thacker
Grass Field

1850 Test VFW Lows 33°40'14"N
Inlet Low pH 1.0 84°02'04"W
+ Bromens

ENTRANCE @ CREEK 1-2
at mouth of creek near 5th
NOTED DNR STAFF @ BRIDGE VIA TRAIL →

GPS: 33° 41' 05" N, 84° 01' 27" W

CL: 0.0 ppm

HCL: 0.0 ppm

(Kaiser) GPS: 33° 41' MU 051° 01' 23" W
+ Jansen
Bryce
CL: ~~0.0~~ ppm → 0.07 ppm
HCL: 0.0 ppm

[1927]
SF BARR
+ Jansen
Bryce
GPS: 33° 41' 20" N 051° 01' 19" W
CL: 0.07 ppm to 0.09 ppm
HCL: 0.00 ppm

[1929]
Jansen Bz
+ KIMMON
CL: 0.12 ppm → 0.08 ppm
HCL: 0.0 ppm
BRYCE RETURN TO COMMAND POST

[1936] Return to Command Post
START Airt Whit & Rich
Kaiser offsite. START C. Parker
T. Messier onsite.

2000 OSC OSC's on site currently
K. Jones, B. Franco, R. Jardine, &
T. Byrd. No Air monitoring at this

B. Byrd

time. OSC's & START

Daniell in next meetings.

START Byler & Messier

Messier updating our monitoring
data base.

202130 Currently START onsite
By) Parker, Fung, Messier &
Daniell. OSCs still in
meetings. Coast Guard
on site 5 person team.
Weather currently, wind 4-10 mph
No at this time, dark
night haze over moon.

23:31 - PREPARE TO DEPART SITE,
to obtain more readings
of CL

Press: CHARLIE
R. Jardine - Didli Fung
H. DANIELLS, T. MESSIER
T. Byrd.

23:35 - DEPART SITE, 1st STOP
HOSPITAL.

HCL C1 Phosgene HBr HCN

UPPER PERIMETER OF PLUME
HS (HYDROGEN SULFIDE)

LOCATION/TIME
TWIN/SIGMA
(CLOUD PLUM)
@ 23:55
NO READINGS

ROCKDALE HOSP.
@ 23:55
NO READINGS

Sigma/Walnut
Grove

70-138 24:06
INTERSECTION
33 40 N
W

NO READINGS

[Signature]

0 0 0 0 0

0

[Signature]

[Signature]

23:55- ARRIVE @ ROCKDALE
HOSPITAL

R. JARDINE MOB TO
INFORM HOSPITAL ADMIN.
OF CG SET-UP TO OBTAIN
READINGS

23:58- SET-UP IN UPPER PARKING
LOT, NO READINGS ACQUIRED

START WEDNESDAY MAY 26, 2004

24:02- DEPART HOSPITAL, TO BEGIN
ROUTE

24:06- BEGIN ON CA20N
NO READINGS

24:08- PROCEED JCT 138(E) &
LEFT @ WALNUT GROVE RD
FOR ABOUT 2 MILE @
READINGS

24:13 PASSING OVER YELLOW
RIVER 2.6 MILES FROM
INTERSECTION ~~ORANGE~~ ^{WALNUT GROVE}

33 41.2804 N

83 57.7143 W

NO READINGS, SLIGHT ODDOR

24:19 4 MILES ON WALNUT
GROVE, STRONG ODDOR,
NO READINGS 0:00PPM

24:20- 138 E - WHITE RD
STRONG ODDOR,
NO READINGS 0:00PPM
33° 42' 04" N
83° 56' 89" W

24:22- LEFT ONTO WHITE RD
SLIGHT ODDOR, NO READINGS
ON OUTER EDGE OF PLUME.
RESIDENTIAL AREA.

24:29- INTERSECTION OF BLACK/
WHITE ST. OBSERVED
ODOR.

24:30 INTERSECTION OF
WHITE/HIGHTOWER (W)
NO READINGS OBTAINED 0:00PPM
33 47 80 N
83 57 94 W

JP

24:34 - PROCEED ON WHITE ST.
STILL IN RESIDENTIAL AREA.

24:35 2100 ^{HIGHTOWER} ~~WATERED~~ FIRESTATION
#5 (NO READINGS)

24:37 - INTERSECTION HIGHTOWER
GA 20 33° 44' 27"
83° 59' 53"
NO READINGS 0.00PPM

24:39 PROCEED @ (L) ON GA 20 HWY
HEADING

24:43 - J. H. HOUSE SCHOOL ELEM.
NO READINGS 0.00PPM
33 43 31
84 00 37

AMERICAN RED CROSS STATION
M.M. 5 (DIABETES RELF
STATION)

24:46 - PROCEED ON HWY GA 20 (S)

J. McDaniel

24:52 - GA HWY 20 (S) - YELLOW RIVER
33° 41' 54"
83° 59' 01"
NO READINGS 0.00PPM

24:57 - MILSTEAD / SIGNAR RD
L (NO READ 0.00PPM)

01:31 - PROCEED TO MOVE CLOSER
TO PLUME TO GATHER
ST. PT. READINGS 0. COVINGTON /
MAIN ST. ENTERING
COMMERCIAL AREA

01:36 - PLUME MOVED TO EAST
IRWIN BR. / MAIN ST.
STRONG ODOR
33 40 44 N
84 01 48 W
PROCEED INTO PLUME.
STRONG ODOR

J. McDaniel

01:42 ROCKBRIDGE/MAIN

1.3 HCN
0.0 HCL
0.0 PHOS.
0.0 HBR
2.0 Hy. Cyanide
0.80 CL (PPM)
.45 CL (DANIELS)

01
01:45 LITHONIA LIGHTING
HCN CYN. 2.1-2.7
CL .79 PPM SPM
CL .50 (DANIELS)

01
01:48 CL 1.20 PPM RR ON MAIN
33 40 45
84 02 14
PLUME DUE EAST
* HIGH OF PLUME
STRONG ODOR

J. M. Daniels

01:50- 1001 VIOLATED READINGS OF CL
DROPPED 0.00 PPM BURNING
OF BLDG. ACROSS STREET
+ Shiley - INDUSTRIAL PARK

02:00 - PROCEED BACK INTO
PLUME

02:04 MAIN/VESTER
HCN 7.6 PPM - 5.5 PPM
CL 1.50 PPM
HBR 0.0 PPM
PHO. 0.0 PPM
HCL - 0.0 PPM
HCN - 4.4 PPM - 5
33 40 46
84 02 30

02:09

HBR - 0.00 PPM
PHO - 13.0 PPM
CL - 0.0 PPM
33 40 45 @ America Lighting
84 02 02 ELECTRIC

J. M. Daniels

NE and has RISEN

02:18 PACTIV Package Co.
HCN 0.0 - 1.3 PPM
CL .75 - .50

02:33 NORTHIDGE / ROCKY RIDGE
CL - 0.00
HBR - 0.00
PHOS - 0.00
HCL - 0.00
HCN - 0.00 - 0.05
33 41 49
84 01 15
AREA OF EVACUATION
RESIDENTIAL

02:37 FARMER / IRVIN Bridge
33 42 15
84 01 94
0.00 NO PETITIONS

J. McDonald

to CONTESS COVINGTON
TO CHECK LOCAL SCHOOLS
B/C THEY ARE STILL IN
SESSION.

04:22 EX#93 OFF I-20E
@ HWY 142

04:24 33' 36" 66" ↓
83' 49" 58"
@ EXXON ST. FLASH FLOOD
HC - 0.4
HS2 - 0.0
CL - 0.0 - 0.0
HCL 0.0
HCN 0.0
PHO. 0.0
HBR 0.0

04:30 - E 142

04:33 B 38 W (SR) 12
TOWARD COVINGTON

J. McDonald

ai...9f-EMORY ST.

33 36 15

83 51 85

HCM .8 ppm

04:43 819 MM-10

33 35 44

83 52 52

HCM .5 ppm

04:47 819 MM-2 MILES

33 34 77

83 52 91

HCM .7 ppm

@ B&H PAINT BODY
SHOP

04:55 814 MM-12

33 36 60

*f-SSLM

.mf. L2L

[Signature]

04:59 814 (EMORY ST.)

PALMER STONE ELEM.

SCHOOL

33 36 90

83 52 04

H&id, Gpp/Mf

05:08 Back

05:10 BACK ON-SITE CONDUCTED
MEETING EXPLAIN SHIFT
CHANGES AND DUTIES
FOR NEXT CREW.

05:30 - LOADED INFORMATION
ONTO SPREADSHEET
OF SOURCE LOCATIONS.
Monitoring will
continue until other
WKE NOTIFIED.

[Signature]

- DATA RAN 6-10 MG
- CL - 7.2 PPM

07:00 - DEPART COMMAND POST

07:05 - BIOLAB- 1601 INDUSTRIAL
 ROCKDALE
 33 40 67
 84 02 38
 D - NO DETECT

07:08 - LESTER / INDUSTRIAL

33 40 46

84 02 43

CL - .13 PPM

HCN ~~1.1~~ .1

STRONG ODOR

07:11 RR - E OF LESTER

Positiv

CL .22

HCN ~~1.5~~ 1.5

STRONG ODOR

of Neil Donald

D - DETECT

07:23 MAIN / IRWIN

D - DETECT

07:28 - PROGRESSING DOWN R.R.

ADJACENT

D - DETECT

07:30 ENTERED DOWNTOWN

CONVEYES D - DETECT

07:31 MAIN / MILSTEAD AVE

ROCKDALE COURTHOUSE

958 — 1515 KIE AVE

D - DETECT

07:37 - COLLEGE - SPRINGWOOD

1171 - 1421

D - DETECT

07:40 - COAST GUARD @ HOSPITAL

CALLED W/ 96 mg Particulate

HE SPOKE W/ HOSPITAL ADMIN

and they decided to turn

A.C. back on, due to VITAL

EQUIPMENT

07:42 LAKEVIEW / MCCORDS CORNER
1251 → 1125 →

STRONG ODOR, OUTER EDGE
OF PLUME (RESIDENTIAL)
0-DETECT

07:48 CONYER Station Residential
PLUME ENCOMPASSING AREA.

08:08 - MTN. VIEW - IRWIN BRIDGE
0-DETECTION

08:11 SIGMA - SIGMA E
0-DETECTION

08:16 - ROCKDALE HSP.
0-DETECT PROCEEDING
DOWN MILWAUKEE

WIND SHIFT 5
6.89 per.

[Signature]

08:30 - WEST / J. 2
NO DETECT, ODOR

08:37 1650 WEST ST.
.25 CL
4.8 HCN -
.55 CL

08:44 1.5 HCN BLACKLAWN / OLD
.89 CL COV.

08:46 DOGWOOD / BLACKLAW
0-DETECTION

08:51 HCN - 7.5
DIRECTLY IN FRONT
OF BIOLAB.

09:33 - Coast Guard (Ed) gathered
LAST READING 6-9 particulates
BREAKING DOWN EQUIPMENT
TO MOVE TO ROCKDALE CO.
COUNTEHOUSE TO SET-UP
AIR MONITORING

[Signature]

10:45 - START PERSONNEL, & EPA
PERSONNEL ALONG W/ ONE
COAST GUARD DEPART
COMMAND POST TO GATHER
NEXT ROUND OF AIR
MONITORING READINGS.

10:30 - SPOKE W/ C. GUARD. Ed
@ Rockdale Courthouse
10 New ADDITIONAL INFORMATION
WAS OBTAINED.

11:00 OSC - SPURLING OFF-SITE
TO attend MEETING W/
OTHER OFFICIALS TO GATHER
INFORMATION OF STATUS TO
SITE.

12:00 ARC - PUBLIC HEALTH OFFICIAL
INFORMS US OF THE LIMITS
TO RELEASE

John D. Daniel

12:00 START SUTHERLAND, MITCHELL,
AND KAISER ARRIVED. START MITCHELL
TAKES MESSIER AND PARKER BACK TO
START OFFICE.

START SUTHERLAND, KAISER, AND WHITE
ARE STAGED TO ASSIST OSC & FEINGOLD
AND BASS TO MONITOR A CREEK
(ATMOSPHERE ABOVE CREEK TO BE EXACT)
FOR THE FOLLOWING GASES USING SPM
INSTRUMENTS:

• PHOSPHENE

• HCN

• H₂S

• CO

• C₁₂

THERE WILL BE THREE SAMPLING POINTS:

1. ON TANYARD BRANCH BELOW VFW LAKE
AND ABOVE IED.
2. ON TANYARD BRANCH SOUTH OF IED.
3. ON ALMAND CREEK NEAR FLAT SHOALS
ROAD, SOUTH OF WHERE TANYARD BRANCH
DISCHARGES INTO ALMAND CREEK.

AT EACH SAMPLING POINT, THE VARIOUS
WILL BE MEASURED AT TWO SEPARATE
POINTS:

John D. Daniel

- A. JUST ABOVE CREEK LEVEL.
 B. BREATHING ZONE ABOVE CREEK
 (FARE LEVEL).

Salmon

DATA TABLE

SAMPLING POINT	PHOTO No.	SAMPLING LOCATION	Time	AIR CONCENTRATIONS							
				DIFFUSION WATER LEVEL	O ₂ (PPM) BREATHING ZONE	H ₂ CO ₃ (PPM) WATER BREATHING LEVEL ZONE	H ₂ CO ₃ (PPM) WATER BREATHING LEVEL ZONE	H ₂ CO ₃ (PPM) WATER BREATHING LEVEL ZONE	H ₂ CO ₃ (PPM) WATER BREATHING LEVEL ZONE	CH ₄ (PPM) WATER BREATHING LEVEL ZONE	CH ₄ (PPM) WATER BREATHING LEVEL ZONE
1		Below dam at VUE Lake (trib. to Tanyard)	1110	0	0	0	0	0	0	0	0
2		S of I20 Tanyard Branch	1125	0	0	0	0	0	0	0	0
3		N of Flat Shoals, Tanyard Branch	1142	0	0	0	0	0	0	0	0
ADDITIONAL MEASUREMENTS											
4		VIA S&S ISS ROXNATE BLVD (AT ENTRANCE)	1805	—	0	—	SPINE AT 1.1 THIN 0	—	0	—	SPINE AT 0.11 THIN 0
5		DIVERSITEZ (EAST AND NORTH PERIMETERS)	1747	—	0	—	0	—	0	—	0
			1851	—	0	—	0	—	0	—	0.12 0.28
6		STAGING AREA	1741	—	0	—	0	—	0	—	0
									0.4 PM (PNEUM) RATED AND GOT 0.0 PPM		
7		BALLFIELDS, SOUTH MAIN (MAY BE LOCATION FIELDS)	1830	—	0	—	0	—	0	—	0

ND

Michael

Flat Shoals are dead, some
were seen alive.

Michael

SSijA
lisa*-

APPENDIX B

PHOTOGRAPHIC LOG

(11 Pages)

(Original photographs and negatives are on file at the Tetra Tech EM Inc. START office)



OFFICIAL PHOTOGRAPH NO. 1
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject: Smoke plume originating from Plant Warehouse 14. Note: Old Covington Highway is in the lower right portion of the photograph.

Location: Bio-Labs, Inc.
Conyers, Rockdale County, Georgia

Orientation: Northwest

TDD Number: 4T-04-05-B-006 **Date:** May 25, 2004

Photographer: John Spink, Atlanta Journal
Constitution Online



OFFICIAL PHOTOGRAPH NO. 2
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject: Firefighters dousing Plant 14 Warehouse with water. Note: Old Covington Highway (top of photograph) and Rockdale Industrial Boulevard (extreme top) are shown in the background.

Location: Bio-Labs, Inc.
Conyers, Rockdale County, Georgia

Orientation: Northeast

TDD Number: 4T-04-05-B-006 **Date:** May 25, 2004

Photographer: Staff, Atlanta Journal Constitution
Online



OFFICIAL PHOTOGRAPH NO. 3
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject: Firefighters using ladder trucks to spray water on the fire.

Location: Bio-Labs, Inc.
Conyers, Rockdale County, Georgia

Orientation: East

TDD Number: 4T-04-05-B-006

Date: May 25, 2004

Photographer: Phil Skinner, Atlanta Journal
Constitution Online



OFFICIAL PHOTOGRAPH NO. 4
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject: Smoke plume parallel to Interstate 20 (foreground).

Location: Bio-Labs, Inc.
Conyers, Rockdale County, Georgia

Orientation: North

TDD Number: 4T-04-05-B-006

Date: May 25, 2004

Photographer: John Spink, Atlanta Journal Constitution
Online



OFFICIAL PHOTOGRAPH NO. 5
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject: Upwind view of the smoke plume.
Location: Bio-Labs, Inc.
Conyers, Rockdale County, Georgia

Orientation: Northwest

TDD Number: 4T-04-05-B-006

Date: May 25, 2004

Photographer: John Spinks, Atlanta
Journal Constitution



OFFICIAL PHOTOGRAPH NO. 6
U.S. ENVIRONMENTAL PROTECTION AGENCY

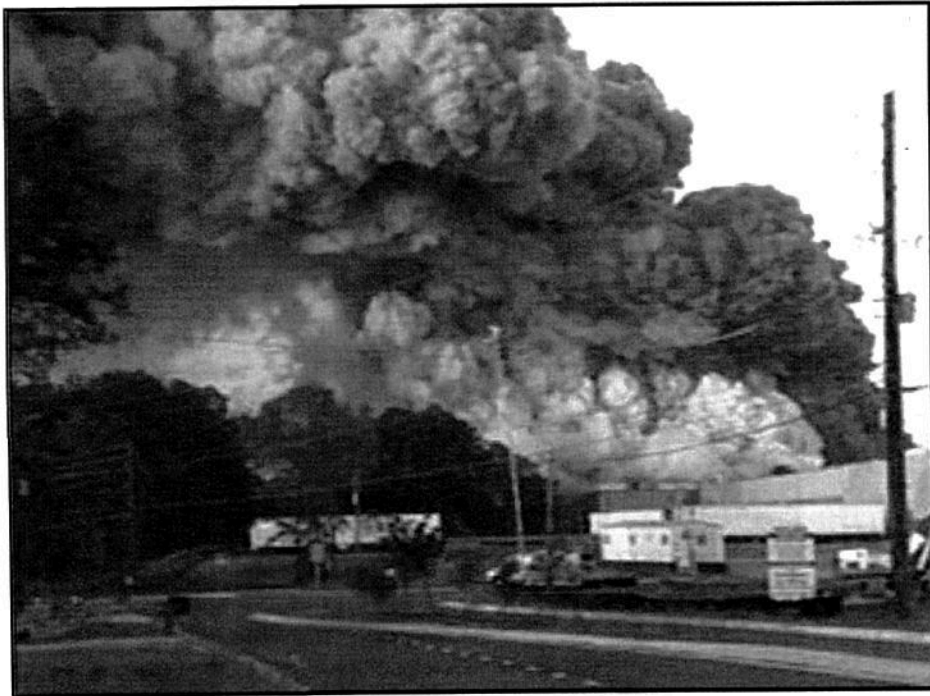
Subject: Upwind view of the plume as seen from the Bernie Bourdon Bridge.

Location: Bio-Labs, Inc.
Conyers, Rockdale County, Georgia

Orientation: Southwest

TDD Number: 4T-04-05-B-006 **Date:** May 25, 2004

Photographer: John Spink, Atlanta Journal Constitution
Online



OFFICIAL PHOTOGRAPH NO. 7
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject: Color changes in the smoke plume.

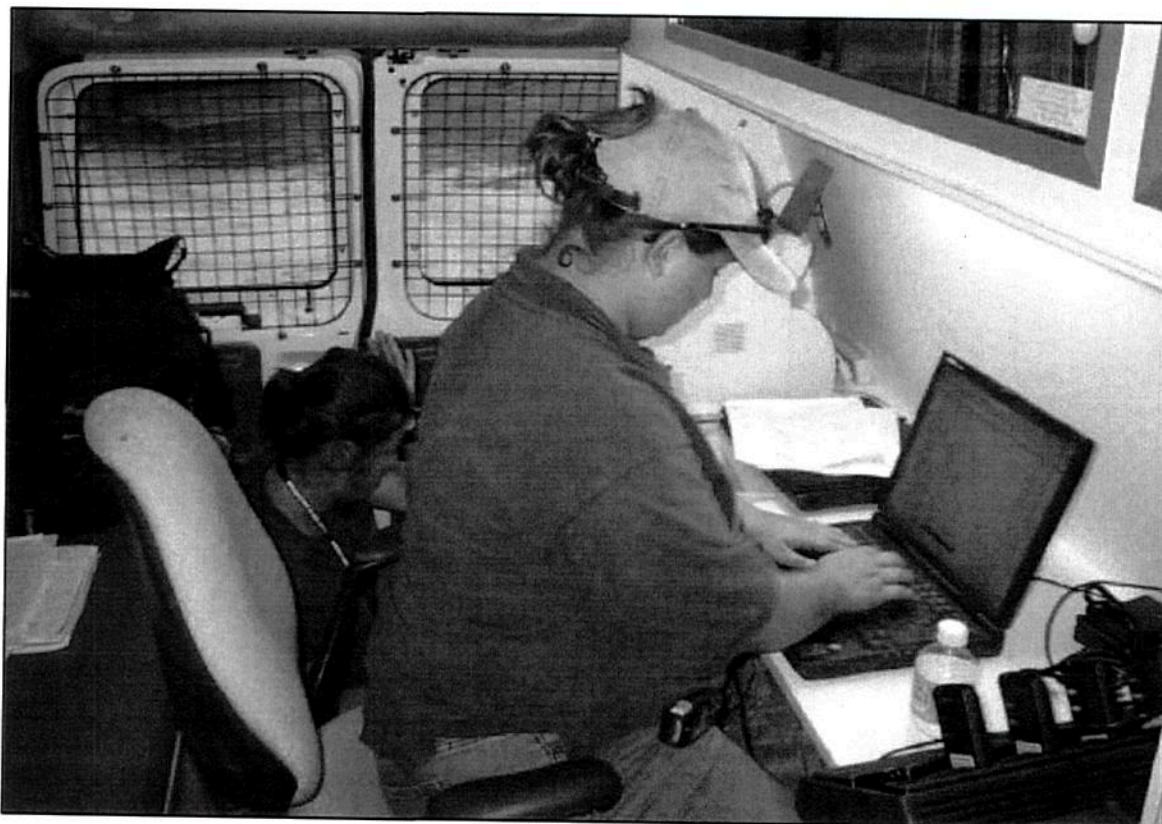
Location: Bio-Labs, Inc.
Conyers, Rockdale County, Georgia

Orientation: Southeast

TDD Number: 4T-04-05-B-006

Date: May 25, 2004

Photographer: Staff, Atlanta Journal Constitution



OFFICIAL PHOTOGRAPH NO. 8
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject:	TtEMI START managing data collected during the response		
Location:	Bio-Labs, Inc. Conyers, Rockdale County, Georgia		
Orientation:	Not applicable		
TDD Number:	4T-04-05-B-006	Date:	May 25, 2004
Photographer:	Charles Parker, Tetra Tech EM Inc. (TtEMI)	Witness:	Bess Blyler TtEMI



OFFICIAL PHOTOGRAPH NO. 9
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject: Air monitoring equipment set up for collecting data from the plume. Note: Addition air monitoring equipment used by START and EPA is inside the vehicle, with the intake hoses deployed outside of the vehicle.

Location: Bio-Labs, Inc.
Conyers, Rockdale County, Georgia

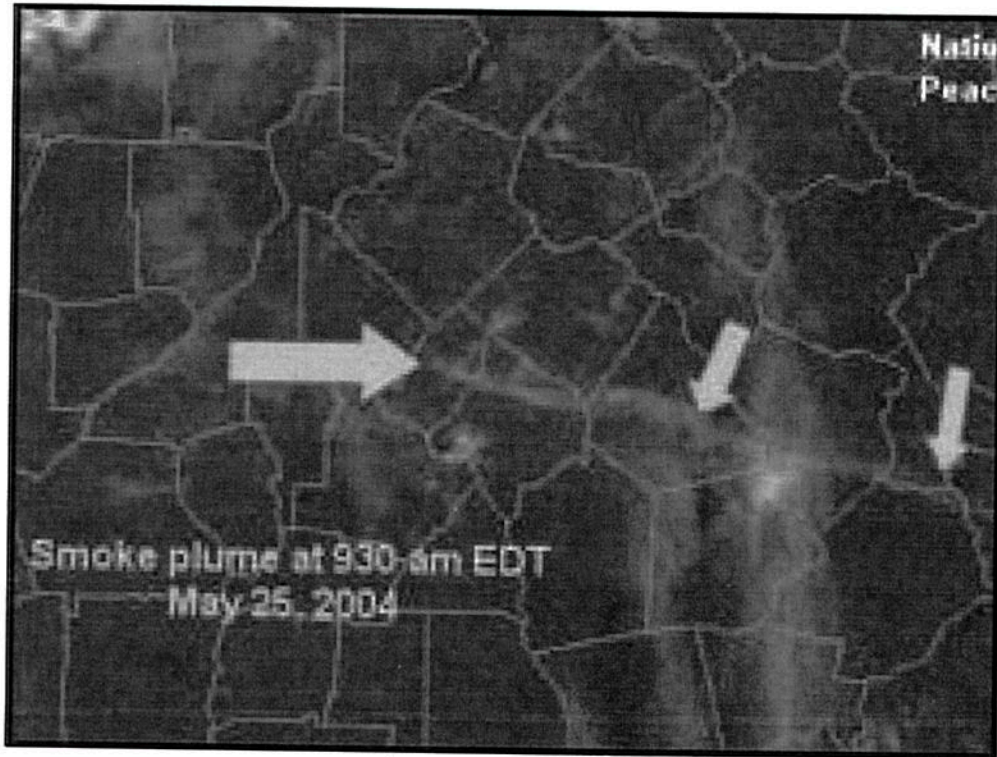
Orientation: Not applicable

TDD Number: 4T-04-05-B-006

Date: May 25, 2004

Photographer: Charles Parker,
TtEMI

Witness: Bess Blyler,
TtEMI



OFFICIAL PHOTOGRAPH NO. 10
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject: GOES Satellite image of the smoke plume.

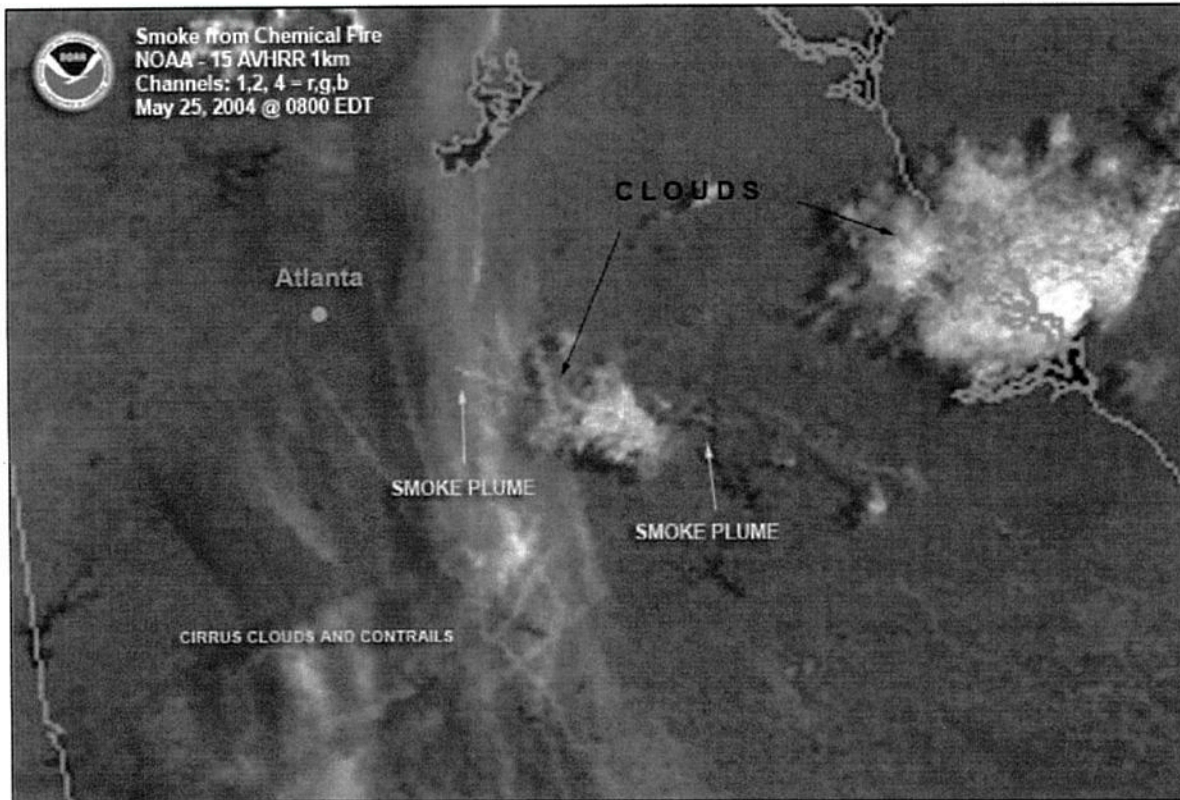
Location: Bio-Labs, Inc.
Conyers, Rockdale County, Georgia

Orientation: Not applicable

TDD Number: 4T-04-05-B-006

Date: May 25, 2004

Photographer: National Weather Service,
Peachtree City, Georgia



OFFICIAL PHOTOGRAPH NO. 11
U.S. ENVIRONMENTAL PROTECTION AGENCY

Subject: One kilometer spatial resolution satellite image of the smoke plume. Note: the smoke plume is well over 100 miles long from the origination point.

Location: Bio-Labs, Inc.
Conyers, Rockdale County, Georgia

Orientation: Not Applicable

TDD Number: 4T-04-05-B-006 **Date:** May 25, 2004

Photographer: National Oceanic and Atmospheric Administration,
National Climatic Data Center

APPENDIX C
TABLE OF WITNESSES
(1 Page)

TABLE OF WITNESSES
Bio-Labs Site
Conyers, Rockdale County, Georgia

Benjamin Franco, On-Scene Coordinator
Rick Jardine, On-Scene Coordinator
Steve Spurlin, On-Scene Coordinator
Katrina Jones, On-Scene Coordinator
Terrance Byrd, On-Scene Coordinator
Brook Bass, On-Scene Coordinator
Amy Feingold, On-Scene Coordinator
U.S. Environmental Protection Agency, Region 4
Emergency Response and Removal Branch
61 Forsyth Street, SW, 11th Floor
Atlanta, Georgia 30303
(404) 562-8767

Neil Daniell, START Project Manager
Alan Whitt
Rich Kaiser
Didi Fung
Bess Blyler
Charles Parker
Tiffany Messier
John Schendel
Superfund Technical Assessment and Response Team, Region 4
Tetra Tech EM Inc.
1955 Evergreen Blvd, Suite 300
Duluth, Georgia 30096
(678)775-3080

APPENDIX D
AIR MONITORING DATA
(7 Pages)

Air Monitoring Data for Bio-Lab Fire in Conyers, Georgia.									
				Analyte Readings					
Sample Time	Latitude	Longitude	Street Address	HBr (ppm)	Phosgene (ppb)	Cl (ppm)	HCl (ppm)	HCN (ppm)	H2S (ppm)
Tuesday, May 25, 2004									
1050 - 1300			Old Covington Hwy & Blacklawn	-	-	0.53		-	-
1050	N33 40 4.4	W84 01 28.0	West SW Ave & West SW Circle	-	-	0.26		-	-
1100	N33 76 20	W84 00 45	Exit 82	-	-	0	1	-	-
1113	N33 37 42	W83 56 55	Exit 98	-	-	0	0	-	-
1121	N33 36 34	W83 53 02	Continue to exit 98	-	-	0	0	-	-
1131	N33 36 40	W83 45 58	Continue to exit 98	-	-	0	0	-	-
1142	N33 36 34	W83 41 58	Exit 101	-	-	0	0	-	-
1220	N33 33 34	W83 30 02	Exit 113	-	-	0	0	-	-
1237	N33 35 37	W83 28 15	Downtown Madison	-	-	0	0	-	-
1050 - 1300	N33 39 54.7	W84 01 40.7	West Ave. at Chevron Station	-	-	0.31	-	-	-
1050 - 1300	N33 39 57.5	W84 01 35.9	West Ave. First National Bank	-	-	0.24	-	-	-
1050 - 1300	N33 39 55	W84 01 40.7	Dogwood Drive	-	-	0.18	-	-	-
1050 - 1300	N33 39 58.9	W84 01 34.3	West Ave. at Family Dollar	-	-	0.1	-	-	-
1050 - 1300	N33 39 56.7	W84 01 37.8	West Ave. at Piggly Wiggly	-	-	0.14	-	-	-
1050 - 1300	NA	NA	West Ave. & I-20	-	-	0.09	-	-	-
1050 - 1300	NA	NA	Dogwood Drive and Taylor Street	-	-	0.31	-	-	-
1050 - 1300	N33 39 37.8	W84 01 22	Dogwood Drive and Bryant Street	-	-	0	-	-	-
1050 - 1300	NA	NA	Dogwood Drive and Harley	-	-	0	-	-	-
1050 - 1300	N33 38 10.3	W83 58 38.4	Dogwood Drive and Glen Rd	-	-	0	-	-	-
1050 - 1300	N33 19 11.6	W84 00 21.5	Highway 138 and Citgo Station	-	-	0	-	-	-
1050 - 1300			Old Covington Hwy and Gees Mill Rd	-	-	0	-	-	-

Note: Numbers in bold indicate concentrations that were detected above a level of concern

HBr = Hydrogen Bromide
HCl = Hydrochloric Acid
HCN = Hydrogen Cyanide
H₂S = Hydrogen Sulfide
Cl = Chlorine

HBr PEL = 3 parts per million
HCl PEL = 5 parts per million
HCN PEL = 4.7 parts per million
H₂STWA = 10 parts per million
Cl PEL = 5 parts per million
Phosgene TWA = 0.1 parts per billion

ppm = parts per million
ppb = parts per billion
+ = concentrations exceeded saturation point of instrument
** = detected concentrations fluctuated at reporting location
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Air Monitoring Data for Bio-Lab Fire in Conyers, Georgia.									
Sample Time	Latitude	Longitude	Street Address	Analyte Readings					
				HBr (ppm)	Phosgene (ppb)	Cl (ppm)	HCl (ppm)	HCN (ppm)	H2S (ppm)
1302	N33 35 24	W83 27 10	1386 Cedar Drive	-	-	0	0	-	-
1320	N33 40 57.4	W84 00 2.3	Rockdale Hospital	0	0	0	-	-	-
1331	N33 40 59.1	W84 00 3.2	Sigman Rd & Milstead	0	0	0	-	-	-
1334	N33 41 15.4	W83 59 49.7	Broad & Hwy 20	0	0	0	-	-	-
1345	N33 40 27.8	W84 00 53.7	Milstead & College	0	0	0	-	-	-
1347 - 07:31	N33 40 54.9	W83 59 37.0	Milstead & Main (Rockdale Court House)	0	0	0	-	-	-
1351	N34 36 45	W83 44 43	Exit 98	-	-	0	0	-	-
1353	N33 40 8.49	W84 0121.4	West Ave & Green Street (Old Covington)	0	0	1.4	-	-	-
1402	NA	NA	New Subdivision (Bridal Bridge Walk)	0	0	1.47	-	-	-
1403	N33 39 54	W84 0141.6	Dogwood Dr & West Ave	0	0	0.2	-	-	-
1410	N33 40 16	W84 02 05	VFW Drive toward 3rd Ave (By VFW Lake)	0.6	0	1.48	-	-	-
1410	N33 40 16	W84 02 05	VFW Drive toward 3rd Ave (By VFW Lake)	0.4	0	1.48 - 0.66**	-	-	-
1410	N33 40 16	W84 02 05	VFW Drive toward 3rd Ave (By VFW Lake)	0	0	1.48 - 0.66**	-	-	-
1411	N33 40 18.7	W84 01 56.6	VFW Drive toward 1st Ave (By VFW Lake)	0	0	0.22 - 0.30**	-	-	-
1411	N33 38 09	W83 58 32	Exit 84	-	-	0	0	-	-
1420	N33 40 15.3	W84 02 22.2	Blacklawn & Olympic	1	0	0	-	-	-
1420	N33 39 34	W84 01 17	Exit 80	-	-	0	0	-	-
1421	N33 40 15	W84 02 09	Olympic Culdesac	12	0	0.17	-	-	-
1422	N33 40 21	W84 02 22	Blacklawn behind Bio-Labs	9	0	1.5	-	-	-
1424	N33 40 08	W84 02 24	-	-	-	0	0	-	-
1424	N33 40 08	W84 02 24	-	-	-	0.24	0	-	-
1428	N33 40 21	W84 02 22	Blacklawn at behind Bio-Labs	5.4	17	1.5	-	-	-

Note: Numbers in bold indicate concentrations that were detected above a level of concern

HBr = Hydrogen Bromide
HCl = Hydrochloric Acid
HCN = Hydrogen Cyanide
H₂S = Hydrogen Sulfide
Cl = Chlorine

HBr PEL = 3 parts per million
HCl PEL = 5 parts per million
HCN PEL = 4.7 parts per million
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Air Monitoring Data for Bio-Lab Fire in Conyers, Georgia.									
Sample Time	Latitude	Longitude	Street Address	Analyte Readings					
				HBr (ppm)	Phosgene (ppb)	Cl (ppm)	HCl (ppm)	HCN (ppm)	H2S (ppm)
1511	N33 39 55.4	W84 01 43	Iris & Klondike	0	0	-	-	-	-
1559	N33 39 5.7	W83 59 7.1	Old Covington Hwy & Command Post	0	0	-	-	-	-
1600	NA	NA	Fire & Rescue Water Tower	0	0	-	-	-	-
1637	NA	NA	East on Rockdale Industrial	0	0	-	-	-	-
1645	N33 40 31	W83 40 21	(Entering Plume)	9	21	0.42	0.9	-	-
1645	N33 40 31	W83 40 21	(Entering Plume)	2.2	26	-	-	-	-
1646	N33 40 28	W84 02 15.5	Lester & Rockdale	0	0	0	-	-	-
1646	N33 40 27.6	W84 02 11.5	Rockdale Industrial	4.1	0	0.21	-	-	-
1646	N33 40 31	W84 02 16	-	-	-	0	0	-	-
1647	N33 40 27.1	W84 01 58.7	Rockdale Industrial	9	0	0.21	-	-	-
1648	N33 40 27.1	W84 01 48.7	Rockdale Industrial	1.1	0	0.09	-	-	-
1648	N33 40 27	W84 02 07	-	-	-	0.61	2.2	-	-
1648			Lester & Rockdale Industrial	-	-	0.41	-	-	-
1648			Rockdale Industrial "American Electric"	-	-	0.29	-	-	-
1648			Rockdale Industrial "American Electric"	-	-	0.42	-	-	-
1648	N33 40 39.7	W84 01 46.6	Harvel & Rockbridge	-	-	0.09	-	-	-
1650	N33 40 27	W84 01 48	-	-	-	0.08	0	-	-
1651	N33 40 27.4	W84 01 46.5	Rockdale Industrial & Rockbridge & Main	1	0	0.08	-	-	-
1652	N33 40 39.7	W84 01 46.6	Rockbridge & Harvel	0	0	0.5	-	-	-
1653	N33 40 39	W84 01 47	-	-	-	0.12	0	-	-
1654	N33 40 39.7	W84 01 46.6	Rockbridge & Harvel	1.3	0	-	-	-	-
1657	N33 40 27	W84 01 46.6	Rockbridge into Plume	9	20	1.45	-	-	-

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HCN = Hydrogen Cyanide
H₂S = Hydrogen Sulfide
Cl = Chlorine

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HCN PEL = 4.7 parts per million
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Cl PEL = 5 parts per million
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Air Monitoring Data for Bio-Lab Fire in Conyers, Georgia.									
Sample Time	Latitude	Longitude	Street Address	Analyte Readings					
				HBr (ppm)	Phosgene (ppb)	Cl (ppm)	HCl (ppm)	HCN (ppm)	H2S (ppm)
1700	N33 40 28	W84 02 15.4	Lester & Rockbridge	3**	15 - 22**	0.42	-	-	-
1700	N33 40 38	W84 02 22	-	-	-	0.17	0.9	-	-
1700			Rockdale Industrial Park on Rockdale Industrial	-	-	1.45	-	-	-
1700			Rockdale Industrial & Lester	-	-	0.42	-	-	-
1747	N33 40 33	W84 02 18	1209 Lester Ave	9+	12	-	-	-	-
1747	N33 40 33	W84 02 18	1209 Lester Ave	9+	21	-	-	-	-
1749			Indian Blvd & Rockdale	9+	33	-	-	-	-
1749			1209 Lester Ave	-	-	0.51	-	-	-
1749			1209 Lester Ave	-	-	0.55	-	-	-
1749			1209 Lester Ave	-	-	0.84	-	-	-
1749			1209 Lester Ave	-	-	1.26	-	-	-
1750	N33 40 33	W84 02 18	1209 Lester Ave	-	-	0.61	5.7	-	-
1751	N33 40 28	W84 02 25	1555 Rockdale Industrial Blvd "VIASYS"	9+	21	-	-	-	-
1751	N33 40 28	W84 02 25	1555 Rockdale Industrial Blvd "VIASYS"	9+	28	-	-	-	-
1751	N33 40 28	W84 02 25	1555 Rockdale Industrial Blvd "VIASYS"	9+	31	-	-	-	-
1753	N33 40 28	W84 02 25	1555 Rockdale Industrial Blvd "VIASYS"	-	-	1.5	15.0+	-	-
1753	N33 40 28	W84 02 25	1555 Rockdale Industrial Blvd "VIASYS"	-	-	0.66	-	-	-
1753	N33 40 28	W84 02 25	1555 Rockdale Industrial Blvd "VIASYS"	-	-	0.54	-	-	-
1803			1601 Rockdale Industrial Blvd Bio-Labs DIST	-	-	1.5	-	-	-
1811	N33 40 59	W84 01 49	1496 Rockbridge Fire Station #7	0	0	-	-	-	-
1813	N33 40 59	W84 01 49	1496 Rockbridge Fire Station #7	-	-	0.06	-	-	-
1813	N33 40 59	W84 01 49	1496 Rockbridge Fire Station #7	-	-	0.11	-	-	-

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HCN = Hydrogen Cyanide
H₂S = Hydrogen Sulfide
Cl = Chlorine

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HCl PEL = 5 parts per million
HCN PEL = 4.7 parts per million
H₂STWA = 10 parts per million
Cl PEL = 5 parts per million
Phosgene TWA = 0.1 parts per billion

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ppb = parts per billion
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Air Monitoring Data for Bio-Lab Fire in Conyers, Georgia.									
Sample Time	Latitude	Longitude	Street Address	Analyte Readings					
				HBr (ppm)	Phosgene (ppb)	Cl (ppm)	HCl (ppm)	HCN (ppm)	H ₂ S (ppm)
1813			Rockbridge Road & Sigman	-	-	0	-		
1814	N33 40 59	W84 01 49	-	-	-	0.08	0		
1817	N33 40 28	W84 01 47	Main & Rockbridge	0	0	-	-		
1817			Main and Ellington	0	0	-	-		
1817			Green & Ellington	0	0	-	-		
1818	N33 40 20	W84 01 47	-	-	-	0	0		
1820			Main & Rockdale Bridge Road	-	-	0	-		
1827			Green & Neemore	0	0	-	-		
1827			VFW & Dogwood	0	0	-	-		
1914			Irwin Bridge & Main	0	0	-	-		
1919			Irwin Bridge & Mountain View	0	0	-	-		
1920	N33 41 08	W84 01 27	-	-	-	0	0		
1920	N33 41 14	W84 01 23	Kingston and Irwin Bridge	0	0	0.07	0		
1923	N33 41 14	W84 01 23	Kingston and Irwin Bridge	-	-	0.06	-		
1926	N33 41 14	W84 01 23	Kingston and Irwin Bridge	-	-	0.06	-		
1926	N33 41 14	W84 01 23	Kingston and Irwin Bridge	-	-	0.09	-		
1927	N33 41 20	W84 01 19	Sigman and Irwin Bridge	0	0	0.08	0		
1929			Irwin Bridge and Kingston	-	-	0.12	0		
1929			Irwin Bridge and Kingston	-	-	0.08	0		
1929			Irwin Bridge and Kingston	-	-	0.08	-		
1929			Irwin Bridge and Kingston	-	-	0.11	-		
2336	N 33 32 18	W81 43 81	EPA Mobile Command Post	0	0	0	0	0	0
2356	N33 40 57.4	W84 00 2.3	Rockdale Hospital	0	0	0	0	0	0

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HCN = Hydrogen Cyanide
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ppm = parts per million
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** = detected concentrations fluctuated at reporting location
- = non detect

Air Monitoring Data for Bio-Lab Fire in Conyers, Georgia.									
Sample Time	Latitude	Longitude	Street Address	Analyte Readings					
				HBr (ppm)	Phosgene (ppb)	Cl (ppm)	HCl (ppm)	HCN (ppm)	H2S (ppm)
Wednesday May 26, 2004									
2408			Junction 138 East (3 miles East of Walnut Grove)	0	0	0	0	0	0
2413	N33 41 28	W83 57 71	Yellow River	0	0	0	0	0	0
2420	N33 42 04	W83 57 89	138 East & White Road	0	0	0	0	0	0
2430	N33 43 80	W83 57 94	White Road & West Hightower	0	0	0	0	0	0
2437	N33 44 27	W83 59 53	Hightower & GA Hwy 20	0	0	0	0	0	0
2443	N33 43 31	W84 00 37	J.H.House Elementary School @ Chandler Rd (Disaster Relief)	0	0	0	0	0	0
2452	N33 41 54	W83 59 81	Ga. Hwy 20 South and Yellow River	0	0	0	0	0	0
0136	N33 40 44	W84 01 48	Irwin Bridge & Main Street	0	0	0	0	0	0
0142			Rockbridge & Main	0	0	0.8 - .45 **	0	1.3	2
0145			Lithonia Lighting (Rockbridge & Main)	0	0	0.5 - 0.79**	0	2.1 - 2.7**	0
0148	N33 40 45	W84 02 14	Railroad Crossing on Main Street	0	0	1.2	0	0	0
0205	N33 40 45	W84 02 14	Railroad Crossing on Main Street	0	0	1.5		3.6 - 5.5 **	4.4 - 5**
0209	N33 40 45	W84 02 02	American Electric Lighting	0	12	0	0	0	0
0233	N33 41 49	W84 01 15	—	0	0	0	0	0.05	0
0237	N33 42 15	W84 01 94	Farmer Rd & Irwin Bridge Road	0	0	0	0	0	0
0404	N33 36 66	W83 49 58	Flash Floods Station	0	0	0	0	0.4	0
0439	N33 36 15	W83 51 85	Emory Street	0	0	0	0	0.8	0
0443	N33 45 44	W83 52 52	81 South at mile marker 10	0	0	0	0	0.5	0
0447	N33 34 77	W83 52 91	81 South at milie marker 12 (B&H Body Shop)	0	0	0	0	0.7	0
0459	N33 36 90	W83 52 04	Palmer Stone Elementary School	0	0	0	0	0.5	0
07:05	N33 40 67	W84 02 38	1601 Rockdale Industrial Blvd	0	0	0	0	0	0

Note: Numbers in bold indicate concentrations that were detected above a level of concern

HBr = Hydrogen Bromide
HCl = Hydrochloric Acid
HCN = Hydrogen Cyanide
H₂S = Hydrogen Sulfide
Cl = Chlorine

HBr PEL = 3 parts per million
HCl PEL = 5 parts per million
HCN PEL = 4.7 parts per million
H₂STWA = 10 parts per million
Cl PEL = 5 parts per million
Phosgene TWA = 0.1 parts per billion

ppm = parts per million
ppb = parts per billion
+ = concentrations exceeded saturation point of instrument
** = detected concentrations fluctuated at reporting location
- = non detect

Air Monitoring Data for Bio-Lab Fire in Conyers, Georgia.									
Sample Time	Latitude	Longitude	Street Address	Analyte Readings					
				HBr (ppm)	Phosgene (ppb)	Cl (ppm)	HCl (ppm)	HCN (ppm)	H2S (ppm)
07:09	N33 40 46	W84 02 43	Lester and Industrial	0	0	0.13	0	0.13	0

Note: Numbers in bold indicate concentrations that were detected above a level of concern

HBr = Hydrogen Bromide
HCl = Hydrochloric Acid
HCN = Hydrogen Cyanide
H₂S = Hydrogen Sulfide
Cl = Chlorine

HBr PEL = 3 parts per million
HCl PEL = 5 parts per million
HCN PEL = 4.7 parts per million
H₂STWA = 10 parts per million
Cl PEL = 5 parts per million
Phosgene TWA = 0.1 parts per billion

ppm = parts per million
ppb = parts per billion
+ = concentrations exceeded saturation point of instrument
** = detected concentrations fluctuated at reporting location
· = non detect

IN THE MATTER OF:)
) IF&R No. 04-98F040-C
Bio-Lab, Inc.,)
Respondent.)
)
)
)
)

5. Complainant, U.S. Environmental Protection Agency (hereinafter "Complainant" or "U.S. EPA"), alleges the possible presence of unregistered products in the channels of trade and under the control of Respondent, and Respondent, without admitting such allegations, has agreed to and shall take the actions to register these products with the U.S. EPA as set forth below:

A. Respondent shall submit to U.S. EPA, Antimicrobial Division, within 90 days from the filing of this CACO (the "Filing Date"), registration applications covering the products that were subject to the Stop Sale, Use and Removal Orders of April 27, 1998 ("Shock Plus 4-in-1 Pool Shock" and "BioGuard Lite Oxidizing Clarifier"), as well as the products containing the same basic formulation as Shock Plus and BioGuard Lite sold under the names, "Synergy Clear", "Simplicity Clear", "Snap Clear", "SpaGuard Enhanced Shock" and "Bermuda Blue Enhancer" (hereinafter collectively, the "Affected Products"). Each registration application will contain:

- 1) All materials that are specified in the application for registration package which the U.S. EPA provides to prospective pesticide applicants. The list of application materials that comprise that package and that are to be submitted in connection with each registration application is attached to this CACO as Appendix A.

2) Product chemistry data as specified in subpart C of Part 158 of 40 C.F.R. and formatted according to PR Notice 86-5.

3) Six acute toxicity studies as specified in subpart D of Part 158 of 40 C.F.R. and formatted according to PR Notice 86-5. Respondent may submit one set of acute toxicity studies for the formulation of the Affected Products that contains 0.15% blue dye to support all product registration application submittals referenced in this Consent Agreement, so long as the Confidential Statements of Formulation submitted for the products to support registration are the same as those previously supplied to U.S. EPA in support of Respondent's request that it be permitted to conduct one representative set of six acute toxicity studies. U.S. EPA may request additional information regarding the blue dye.

B. The requirement, if any, for efficacy data will be determined based on the claims made for a particular Affected Product as part of the registration application. Depending upon the claims that Respondent seeks, different types of data may be required. For example, should Respondent include any sanitizer or disinfectant claims, efficacy data would be required to be submitted with the application. Efficacy data for products with only non-public health claims, such as

algicides, would be required to be retained by the Respondent and submitted to the Agency upon request as per the regulations in 40 C.F.R. Part 158. Respondent must also demonstrate that it is using a registered source product which itself is in compliance with applicable data requirements, or identify its source and provide appropriate supporting generic data.

C. U.S. EPA will complete review of each complete registration application for the Affected Products and accompanying data according to the applicable review time period under FIFRA, unless U.S. EPA and Respondent agree to an alternative schedule.

D. Respondent will correct any deficiencies with each application within a reasonable time. If more than 30 days are required to correct any deficiency(ies), or to submit additional required information or data, Respondent and U.S. EPA will agree to a reasonable alternate review time period to accommodate any such deficiencies, or for the submission of additional information or data and their correction or review, as applicable.

E. Respondent shall submit all information, data, notices and reports required pursuant to the pesticide registration process and the provisions of this section to Mr. Robert Brennis at the address indicated below:

Mr. Robert Brennis
Mail Stop 7504C
Antimicrobial Division
U.S. EPA
PM-32
401 M Street, SW
Washington, D.C. 20460

6. Subject to Paragraph 7 of this Consent Agreement, Respondent agrees to perform the following activities in accordance with the schedules set forth within:

A. Product Status Information Through Placarding/Labeling

1) Placards: Respondent will cause the agreed-upon placards in Appendix B to this CACO for Shock Plus and use reasonable efforts to cause the agreed-upon placards in Appendix B for BioGuard Lite, to be placed on all pallet and on all shelf displays for the products in the approximately 5,000 retail stores that sell them as follows:

- a) On or before September 4, 1998, Respondent shall have installed placards in all of the retail stores that sell "Shock Plus," and shall have used reasonable efforts to have the placards installed in all of the retail stores that sell "BioGuard Lite."
- b) Respondent shall use reasonable efforts to maintain the placards in place at the affected retail sales establishments. Upon receipt by Respondent of notice of removal of a placard

for Shock Plus, Respondent will replace any such placard within a reasonable period of time. Likewise, upon receipt by Respondent of notice of removal of a placard for BioGuard Lite, Respondent shall use reasonable efforts to have the placards replaced within a reasonable period of time. Once the stock at any such establishment is comprised only of unregistered product bearing the agreed-upon label as set forth in paragraphs 6A2 and 6A3 below, Respondent will then be released from the obligation to maintain or replace placards for Shock Plus, and to use reasonable efforts to maintain or have placards replaced for BioGuard Lite, but shall not instruct its dealers, distributors or agents to remove the placards.

2) Placing Labels on BioGuard Lite:

On or before July 13, 1998, Respondent shall have commenced and thereafter shall continue labeling all newly produced BioGuard Lite produced by Respondent on or after that date using the agreed-upon label for the product set forth in Appendix C.

3) Placing Labels on Shock Plus:

On or before July 31, 1998, Respondent shall have commenced and thereafter shall continue labeling all one-pound bags of Shock Plus newly produced by Respondent on or after that date using the agreed-upon label for the product set forth in Appendix D.

B. Placarding/Labeling for Additional Affected Products

1) Placarding of SpaGuard: Respondent will use reasonable efforts to cause the agreed-upon placards for SpaGuard Enhanced Shock set forth in Appendix E to be placed in all pallet and shelf displays for the products in all retail stores that sell them, as follows:

- a) On or before September 1, 1998, Respondent shall use reasonable efforts to have the placards installed in at least 70% of the retail stores that sell SpaGuard Enhanced Shock.
- b) On or before September 18, 1998, Respondent shall use reasonable efforts to have the placards installed in at least 90% of the retail stores that sell SpaGuard Enhanced Shock.
- c) On or before October 10, 1998, Respondent shall use reasonable efforts to have the placards installed in the remainder of the

retail stores that sell SpaGuard Enhanced Shock.

- d) Respondent shall use reasonable efforts to maintain the placards in place at the affected retail sales establishments and, upon receipt by Respondent of notice of removal of a placard, will use reasonable efforts to have any such placard replaced within a reasonable period of time. Once the stock at any such establishment is comprised only of unregistered product bearing the agreed-upon label as set forth in paragraph 6B2 below, Respondent will then be released from the obligation to use reasonable efforts to maintain or have the placards replaced, but shall not instruct its dealers, distributors or agents to remove the placards.

- 2) Labeling of SpaGuard: Respondent shall place the agreed-upon labels for SpaGuard Enhanced Shock set forth in Appendix F on such products, as follows:

- a) On or before August 18, 1998, Respondent shall label all new production of two-pound bottles of SpaGuard Enhanced Shock undertaken by Respondent on or after that date using the agreed-upon label for the product.

- b) On or before September 5, 1998,
Respondent shall commence labeling of all 1.5 ounce bags of SpaGuard Enhanced Shock produced by Respondent on or after that date using the agreed-upon label for the product.
- 3) Placarding of the Clear Products:
Respondent will use reasonable efforts to have the agreed-upon placards for the products "Synergy Clear," "Simplicity Clear" and "Snap Clear" (the Clear Products) set forth in Appendix G placed and maintained in all pallet and shelf displays for the products in all retail stores that sell them, as follows:
 - a) On or before September 1, 1998,
Respondent will provide each and every one of Respondent's distributors of the Clear Products: (a) an ample supply of the agreed-upon placards, and (b) written instructions for the distributor to have each retail customer of the distributor that sells a Clear Product promptly install and maintain the placards next to every pallet or shelf display of the products in the retail customer's establishment(s).
 - b) Respondent shall use reasonable efforts to

(i) have its distributors ensure that the placards are maintained in place at all affected retail sales establishments and (ii) have its distributors, upon receipt by the distributor of notice of removal of a placard, to replace the placard within a reasonable period of time. Once the stock at any such establishment is comprised only of unregistered product bearing the agreed-upon label as set forth in paragraph 6B4 below, Respondent will then be released from the obligation to use reasonable efforts to have its distributors maintain and replace the placards, but shall not instruct its distributors, dealers or agents to remove the placards.

4) Labeling of the Clear Products:

On or before August 18, 1998, Respondent shall label all new production of the Clear Products undertaken by Respondent on or after that date, using the agreed-upon label for the product set forth in Appendix H.

5) Placarding of Bermuda Blue Enhancer:

Respondent will use reasonable efforts to cause the agreed-upon placards for Bermuda Blue Enhancer set

forth in Appendix I to be placed in all pallet and shelf displays for the products in all retail stores that sell them, as follows:

- a) On or before August 18, 1998, Respondent shall use reasonable efforts to have the placards installed in at least 70% of the retail stores that sell Bermuda Blue Enhancer.
- b) On or before September 18, 1998, Respondent shall use reasonable efforts to have the placards installed in at least 90% of retail stores that sell Bermuda Blue Enhancer.
- c) On or before October 10, 1998, Respondent shall use reasonable efforts to have the placards installed in the remainder of the retail stores that sell Bermuda Blue Enhancer.
- d) Respondent shall use reasonable efforts to maintain the placards in place at the affected retail sales establishments and, upon receipt by Respondent of notice of removal of a placard, will use reasonable efforts to have any such placard replaced within a reasonable period of time. Once the stock at any such establishment is composed only of unregistered product bearing the agreed-upon label as set forth in paragraph 6B6 below, Respondent will

then be released from the obligation to use reasonable efforts to maintain or have the placards replaced, but shall not instruct its dealers, distributors or agents to remove the placards.

- 6) Labeling of Bermuda Blue Enhancer: On or before August 18, 1998, Respondent shall label all new production of Bermuda Blue Enhancer undertaken by Respondent on or after that date, using the agreed-upon label for the product as set forth in Appendix J.

C. Internet Information

- 1) Within seven days after the filing of this CACO, Respondent shall add the following language to its Internet world-wide web access site, and any affected subordinate or linked pages or sites, with respect to all web pages which reference any of the Affected Products: " [name of product] has not been accepted by U.S. EPA for use as a disinfectant, sanitizer, or algicide."
- 2) Within seven days after the Filing Date, Respondent shall remove or correct the language identified in the web site pages presented in Appendix K, as indicated therein, in light of Complainant's allegation that the language states

or implies that the Affected Products are pesticides. Where Appendix K indicates that Respondent will submit substitute language for language that is to be removed, Respondent shall submit such language to U.S. EPA within 30 days after the Filing Date, and U.S. EPA shall review such language in accordance with the procedures set forth in paragraph 6C4.

- 3) Respondent will use reasonable efforts to add the language set forth in paragraph 6C1 to the web sites of its customers whose web sites reference any Affected Product and to have removed or corrected from such customers' web sites the language set forth in Appendix K to the extent such language is contained in such web sites.
- 4) Should Respondent decide that it wishes to include on its web site(s) after the Filing Date additional or different language from that in existence immediately prior to the Filing Date pertaining to the Affected Products, Respondent shall first submit the additional or different language to U.S. EPA. U.S. EPA will use its reasonable efforts to complete within fourteen (14) working days the review of such submission, and then either approve or disapprove the additional or

different language. Any disapproval of such additional or different language shall be based on the U.S. EPA's determination that the additional or different language makes express or implied pesticidal claims. If U.S. EPA fails to decide on the proposed additional or different language within 14 working days, Respondent shall be permitted to include such additional or different language on its web site until receipt of notification from U.S. EPA of its decision to approve or disapprove said language. Within seven working days of receipt from U.S. EPA of its written disapproval of the additional or different language, Respondent shall remove said language. Unless otherwise agreed by the parties in writing, such notice shall be provided to Mr. Kirk Mitchell, Vice President, Technology and Development, BioLab Inc., P.O. Box 1489, Decatur, GA 30031-1489.

D. Marketing and Advertising Information

- 1) Any sales brochures, advertisements, and any other marketing information which as of the Filing Date is in the possession or control of Respondent or any of Respondent's agents and is yet to be sent out into the channels of trade, and which contains any information concerning or referring to any of

the Affected Products, shall, before the material is sent out into the channels of trade, be stickered (with respect to written material) with, or modified (with respect to radio, television or other non-written material) to include, the following language: "[name of product] has not been accepted by U.S. EPA for use as a disinfectant, sanitizer, or algicide."

- 2) With respect to any sales brochures, advertisements and other marketing information undertaken by Respondent after the Filing Date, Respondent shall also add the approved language of paragraph 6D1.
- 3) Should Respondent decide that it wishes to include additional or different language from that in existence immediately prior to the Filing Date in any brochures, advertisements or other marketing information undertaken by Respondent after the Filing Date, Respondent shall first submit such additional or different language to U.S. EPA. U.S. EPA will use its reasonable efforts to complete within fourteen (14) working days the review of such submission and then either approve or disapprove the additional or different language. Any disapproval of such additional or different

language shall be based on the U.S. EPA's determination that the additional or different language makes express or implied pesticidal claims. If U.S. EPA fails to decide on the proposed additional or different language within 14 working days, Respondent shall be permitted to include such additional or different language in any brochures and advertisements or other marketing information until receipt of notification from U.S. EPA of its decision to approve or disapprove said language. Within seven working days of receipt from U.S. EPA of its written disapproval of the additional or different language, Respondent shall remove said language. Unless otherwise agreed by the parties in writing, such notice shall be provided to Mr. Kirk Mitchell at the address listed in paragraph 6C4 above.

- 4) Respondent will use reasonable efforts to have its customers include the approved language set forth in paragraph 6D1 in any brochures, advertisements, and other marketing material referencing any of the Affected Products.

E. In the event that U.S. EPA approves Respondent's application for registration of Shock Plus, Respondent shall cause the removal of placards for Shock Plus from all

establishments in which Respondent installed them pursuant to paragraph 6A1, provided that the establishment has first replaced part or all of its stock with the registered version of Shock Plus. Likewise, in the event that U.S. EPA approves Respondent's application for registration of any of the other Affected Products, Respondent shall use reasonable efforts to have the placards for such Affected Product removed from all establishments in which they were installed pursuant to paragraphs 6A1, 6B1, 6B3, and/or 6B5, provided that the establishment has replaced part or all of its stock with the registered version of the Affected Product.

F. Reporting Requirements

- 1) Notice of all activities which must be reported to EPA for review or approval, as indicated in paragraphs 6A-E above and 6F2 and 6F3 below shall be provided in duplicate to Ms. Cheryn Jones and Mr. Philip J. Ross at the following addresses, via regular mail:

Ms. Cheryn Jones
Pesticides Section
U.S. EPA - Region 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30303

Mr. Philip J. Ross
U.S. Environmental Protection Agency
Office of General Counsel
Mail Code 2333, 511E West Tower
401 M Street, S.W.
Washington, D.C. 20460

- 2) Respondent shall report on the progress of all activities required to be performed under paragraphs 6A-E within 30 days of the filing of this CACO. Such report shall contain the following information: (a) with respect to all Affected Products except the Clear Products, the locations of marketplace establishments in which placards have been installed by Respondent or provided by Respondent to the retailer for installation, as well as the locations of establishments which do not yet have the placards installed by Respondent or provided by Respondent to retailers for installation, and the schedule for completion of this activity; (b) with respect to the Clear Products, the name and address of every distributor of any Clear Product that has received the materials set forth in paragraph 6B3a, as well as the name and address of every distributor of any Clear Product that has not received said materials; (c) with respect to all Affected Products, the status of all other activities required pursuant to paragraphs 6A-E of this CACO; and (d) such other relevant information that Complainant may request pertaining to the activities required pursuant to paragraphs 6A-E of this CACO.

3) Respondent shall continue to submit progress reports at 30 day intervals through the running of this CACO. Respondent shall continue to report on the progress of the projects for the Affected Products until such time as U.S. EPA informs Respondent that such status reports are no longer necessary or that Respondent has fulfilled its obligations under this CACO. Within 30 days of the registration by U.S. EPA of any Affected Product, Respondent shall submit a progress report describing the schedule for cessation of sales of such unregistered Affected Product (as detailed in paragraph 7, below), the amount of remaining inventory of such Affected Product in Respondent's possession or control, and the schedule for removing (in the case of Shock Plus), or using reasonable efforts to cause the removal of (in the case of other Affected Products), placards for such Affected Product.

7. Respondent agrees, upon receipt of written notification from U.S. EPA that U.S. EPA has granted registration of an Affected Product, to stop selling or distributing any unregistered containers of the Affected Product under the control of Respondent, except that Complainant agrees to allow Respondent to sell or distribute stocks of the Affected Product existing as of

30 days after the date of receipt of notification of registration. Existing stocks are those Affected Products for which all steps of formulation, packaging and labeling have been completed, but which have not been released for shipment from the producing establishment. Complainant will allow Respondent to sell or distribute such existing stocks of Affected Products, subject to the applicable requirements of paragraphs 6A-E above, until such stocks are exhausted, or for 90 days following receipt by Respondent of notice from U.S. EPA that the Affected Product has been accepted for registration, whichever period of time is shorter. Should U.S. EPA notify Respondent in writing of a final Agency decision not to accept the application for registration of an Affected Product for any reason, including because U.S. EPA has concluded that any part or all of the application for registration of an Affected Product is deficient and Respondent has failed to correct the deficiency(ies) within such time period as may be established pursuant to paragraphs 5C and 5D above, then, after the exhaustion by Respondent of any available administrative and judicial appeal of said final decision, none of the provisions of paragraphs 6A-E, and none of the provisions of this paragraph or of the rest of the CACO authorizing any continued sale or distribution of new or existing stocks of the Affected Product shall apply to that Affected Product, and both parties shall retain all the authorities and defenses that they possessed prior to the effective date of this CACO with respect to any subsequent

sale or distribution of the Affected Product. In order for the provisions of this CACO identified in the previous sentence to remain in effect pending exhaustion by Respondent of any available judicial appeal of an Agency decision to deny registration of an Affected Product, Respondent must file its judicial appeal within 60 days of the filing of said Agency decision, or within 60 days of the filing of a final Agency order denying Respondent's administrative appeal of said decision, whichever occurs later.

8. Respondent consents to the payment of a civil penalty of Three hundred nineteen thousand dollars (\$319,000.00) to Complainant, in settlement of the violations of FIFRA alleged in the Complaint. The Respondent shall pay to the Treasurer, United States of America, by certified or cashier's checks, the total amount of \$327,200.00, which includes interest, in accordance with the schedule set forth below:

DATE	AMOUNT
30 Days from entry of CACO	\$100,000.00
180 Days from entry of CACO	\$113,600.00
365 Days from entry of CACO	\$113,600.00

9. In the event that Respondent fails to comply with any term of this Consent Agreement other than the miscellaneous registration provisions of paragraphs 5B-E, Respondent agrees to pay stipulated penalties to Complainant as specified and under the conditions set forth in paragraph 5 of the Consent Order.

10. Respondent represents by its signature below that it will meet all the requirements of this Consent Agreement, or where such standard is noted, shall exercise reasonable efforts. Where any Consent Agreement requirement refers to a past accomplishment date, Respondent represents by its signature that it has met such requirement(s).

11. Complainant agrees not to issue any additional Stop Sale, Use or Removal Orders, or assess any administrative penalties other than those specified in this CACO, against Respondent for sale or distribution of the Affected Products, so long as Respondent complies with and does not materially breach the terms of this CACO. If Respondent should fail so to comply with any term of this CACO, including but not limited to making revisions to any of the labels of the Affected Products subject to this CACO without the prior review and approval of U.S. EPA, Complainant reserves the right to utilize any and all enforcement authorities conveyed to Complainant under FIFRA. Likewise, once there has been a final action by U.S. EPA concerning the registration of any of the Affected Products, and Respondent has exhausted any available administrative and judicial appeals of said action, Complainant reserves the right, subject to the terms of this CACO, to utilize any and all authorities conveyed to Complainant under FIFRA with respect to the acts or omissions of Respondent pertaining to said Affected Product occurring after receipt by Respondent of such final action by U.S. EPA, and

exhaustion by Respondent of any available administrative and judicial appeals of said action. Respondent reserves all of its defenses in connection therewith.

12. Complainant and Respondent, desiring to terminate these proceedings without further litigation, have agreed to resolve these matters without resorting to a hearing. Therefore, Complainant and Respondent have each consented to the making and entry of this Consent Agreement and Consent Order.

CONSENT ORDER

NOW, pursuant to the authority of Section 14(a) of FIFRA, 7 U.S.C. § 1361(a), upon information contained in the Consent Agreement, and after taking into account the gravity of the alleged violations, it is hereby ordered and adjudged as follows:

1. This Agency has jurisdiction of the subject matter of these administrative proceedings.

2. Respondent shall take action to apply for registration of the Affected Products and shall take action to register the Affected Products in accordance with the schedule set forth in paragraph 5 of the Consent Agreement, and in accordance with the FIFRA regulations promulgated at 40 C.F.R. Part 150 *et seq.*, and with the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. § 136 *et seq.*

3. Respondent shall comply with the schedules and requirements in paragraphs 5, 6 and 7 of the Consent Agreement.

4. The Respondent shall pay to the Treasurer, United States of America, by cashier's checks, a total amount of Three hundred twenty-seven thousand two hundred dollars (\$327,200.00) pursuant to the schedule described in paragraph 8 of the Consent Agreement. The checks shall be mailed to the following lockbox address:

U.S. EPA, Region 4
(Regional Hearing Clerk)
Post Office Box 100142
Atlanta, Georgia 30384

5. Stipulated Penalties

A. Respondent acknowledges that failure to comply with any term of this CACO other than the miscellaneous registration provisions of paragraph 5B-E of the Consent Agreement and those portions of paragraphs 2 and 3 of the Consent Order incorporating such provisions, except as noted below in paragraph 5B, will result in stipulated penalties and interest due to Complainant according to the following rate schedule:

Compliance Delay	Stipulated Penalty
1- 30 days	\$1,000 per day
31 - 60 days	\$2,000 per day
Over 60 days	\$10,000 per day

B. Respondent also acknowledges that failure to comply with paragraphs 6A1, 6B1, 6B3 or 6B5 of the Consent Agreement, or failure to comply with the terms or actions required under paragraph 6F of the Consent Agreement, will result in

stipulated penalties and interest due to Complainant according to the following rate schedule:

Compliance Delay	Stipulated Penalty
1- 30 days	\$100 per day
31 - 60 days	\$500 per day
Over 60 days	\$1,000 per day

C. It shall be a defense in any proceeding to enforce the stipulated penalties specified in paragraph 5A and 5B that the action(s) or omission(s) at issue constituted an isolated, unintentional failure to comply in which Respondent acted in good faith and has acted promptly to mitigate the violation upon notice or knowledge thereof, it being understood, however, that BioLab shall bear the burden of establishing the defense by a preponderance of the evidence provided. The parties recognize that any shipment, however limited, of an Affected Product that is not properly labeled as provided in paragraphs 6A2, 6A3, 6B2, 6B4, or 6B6 (as applicable), would constitute a violation for which stipulated penalties would apply, unless Complainant, in its discretion, chose to waive or reduce the penalties in light of extenuating or mitigating circumstances.

D. Complainant shall provide notice to Respondent of any failure by Respondent to comply with this CACO promptly upon Complainant first becoming aware of such noncompliance. No stipulated penalties for noncompliance shall be assessed

against Respondent for the period between the date Complainant first becomes aware of such noncompliance and receipt by Respondent of notice from Complainant of such noncompliance.

E. Any notice, written or otherwise, required under paragraph 5D of this Consent Order to be submitted to Respondent shall be sent to either of the following individuals:

Mr. Kirk Mitchell
Vice President, Technology & Development
BioLab, Inc.
P.O. Box 1489
Decatur, Georgia 30031-1489
Telephone: 404-378-1753

James P. Rathvon, Esquire
Piper & Marbury, L.L.P.
1200 Nineteenth Street, N.W.
Washington, D.C. 20036-2430
Telephone: 202-861-3848

F. Pursuant to Section 11 of the Debt Collection Act of 1982, 31 U.S.C. § 3717, the interest rate assessed will be based on the current value of funds to the United States Treasury at the time this Order is issued, and such rate will remain in effect until full payment is received. In addition, an administrative handling charge of \$15.00 will be assessed if payment is not received by the due date, with an additional charge of \$15.00 for each subsequent 30-day period. A six percent per annum late payment penalty will

also be applied on any principal amount not paid within 90 days of the due date.

6. Respondent also acknowledges that failure to pay the full amount due, together with any accrued interest, administrative handling charges, and late payment penalties, may result in further action by the Complainant. Such action may include referral of this matter to a credit reporting agency, a collection agency, and/or the United States Attorney for commencement of a civil action in the United States District Court. (See, Section 14(a) of FIFRA, 7 U.S.C. § 1361(a), and 40 C.F.R. Part 13).

7. Any material violation of the terms of this CACO by Respondent may subject Respondent to additional enforcement action pursuant to FIFRA. Such action may include, but is not limited to, the issuance of a Stop Sale, Use or Removal Order pursuant to Section 13 of FIFRA, 7 U.S.C. § 136k, or an administrative penalty action pursuant to Section 14 of FIFRA, 7 U.S.C. § 1361.

8. The terms of this CACO shall be binding upon Respondent and its directors, officers, employees, agents, successors and assigns. The undersigned representative of each party to this CACO certifies that he or she is duly authorized by the party whom he or she represents to enter into the terms of this CACO and to bind that party.

9. This CACO resolves and discharges Respondent, its directors, officers, employees and agents from all civil liability

arising from only those violations alleged in the Complaint, and those violations that could have been alleged in the Complaint with respect to the Affected Products under the civil enforcement provisions of FIFRA through the filing date of this CACO, as well as with respect to sales and distribution of Affected Products that may be authorized under this CACO. This CACO shall not otherwise affect any liability of Respondent to the United States, nor does it have any bearing on any future bases for liability that may arise. Except as provided above, U.S. EPA does not waive any right to bring an enforcement action against Respondent for violation of any federal statute, regulation or permit.

10. For purposes of state and federal income taxation, Respondent's payment shall be deemed a civil penalty payment.

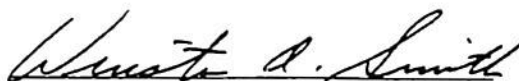
11. Each party shall bear its own costs and attorney's fees in connection with these actions.

12. This CACO shall terminate when (a) Respondent has paid the full penalty in accordance with the schedule in paragraph 8 of the Consent Agreement; (b) Respondent has complied with all the terms of Paragraphs 5, 6 and 7 of the Consent Agreement; (c) final U.S. EPA action has been taken on Respondent's registration applications for Affected Products and Respondent has exhausted any available administrative and judicial appeals of any denial of registration; and (d) Respondent has paid all stipulated penalties and late fees that may be due in accordance with paragraph 5 of the Consent Order.

CONSENTED TO:

ENVIRONMENTAL PROTECTION AGENCY, Complainant

BY:


Winston A. Smith, Director
Air, Pesticides and Toxics
Management Division

SEP 14 1998

DATE: _____

Bio-Lab, Inc., Respondent


BY:


Larry Bloom
President
Bio-Lab, Inc.

DATE: _____

9/9/98

APPROVED AND SO ORDERED:


John H. Hankinson, Jr.
Regional Administrator
Environmental Protection Agency
Region 4

DATE: _____

9/14/98

Attachment: Appendix A-K

A

APPENDIX A

Materials to be Included in Each BioLab Application for Registration of the Affected Products in Addition to Required Data

Cover Letter

Application (EPA Form 8570-1)

Confidential Statement of Formula (EPA Form 8570-4)

Formulator's Exemption Statement (EPA Form 8570-27)

Certification of Child Proof Packaging

Five Copies of Draft Label

ALL STATE LEGAL 600-777-0540 EDS11 RECYCLED

• BioGuard Lite™ Placard

**BioGuard Lite™ has not been
accepted by the U.S. EPA for use
as a disinfectant, sanitizer
or algicide.**

JUN 22 1993

*Don't buy any more of this stuff
it's not safe*

• Shock Plus™ Placard

**Shock Plus™ has not been
accepted by the U.S. EPA for use
as a disinfectant, sanitizer
or algicide.**

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED
DATE 01-14-11 BY 60322 RUC/STP

C



OXIDIZER

Lite™

Once-a-week oxidizing clarifier for sparkling water.

This product has not been accepted by the U.S. EPA for use as a disinfectant, sanitizer or algicide.



KEEP OUT OF REACH OF CHILDREN

DANGER (See back panel for additional precautionary statements.)

FIRST AID: If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention. If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists. If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention. If swallowed: Drink large amounts of water. Do not induce vomiting. Avoid alcohol. Never give anything by mouth to an unconscious person. Call a physician or poison control center. **NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. **IN CASE OF MEDICAL EMERGENCY CALL 1-303-623-5716.**

MANUFACTURED BY BIO-LAB, INC., Decatur, Georgia 30031 USA

NET WEIGHT: 2 Lbs. (.91 Kg)



This product is specially formulated to eliminate eye irritating chloramines, musty odors, correct most cloudy conditions and restore pool water sparkle. Special agents aid the filter in removing small suspended particles to further enhance water clarity.

This product dissolves quickly and completely. (Under cold water conditions, brush after application to speed dissolving. Do not allow undissolved material to lie in contact with bleachable surfaces such as vinyl or paint.) No premixing is required and no undissolved solids remain. May be used with chlorine, ozone and ionization systems. It is formulated for use with all types of pool surfaces. DO NOT use in pools sanitized with biguanides.

DIRECTIONS FOR USE: Read entire label before applying product and use strictly in accordance with directions and hazard warnings.

With the pump in operation, apply the entire treatment dosage at one time. Broadcast evenly around edges with special attention to areas of the pool where water circulation is the poorest. Apply directly to pool water only. Do not add through a skimmer or any automatic dispensing device. This product is pH neutral and usage will not upset pool water balance.

For best results, test and adjust pool water pH to 7.2-7.6 prior to application. Apply product when pool is not in use. Swimming may resume in 15 minutes.

ROUTINE MAINTENANCE: To maintain a sparkling clear fresh pool, add one pound of product for up to 12,000 gallons of water each week.

ADDITIONAL TREATMENTS: Additional applications may be required after periods of extremely heavy pool usage, significant rainfall or the appearance of cloudy water. Apply additional treatments at the rate of one pound of product for up to 12,000 gallons.

OFF SEASON MAINTENANCE: Heated pools which are kept circulating during the winter season require less frequent additions. Apply product approximately once each month at the rate of one pound of product for up to 12,000 gallons.

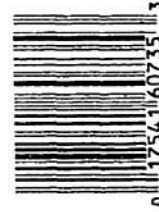
STORAGE: Keep this product dry in original tightly closed container until use. Store in a cool, dry, well ventilated area away from heat or open flame. Do not reuse container, but place in trash collection. Rinse thoroughly before discarding in trash.

HAZARD WARNINGS: Contains chlorinated isocyanurates.

DANGER: Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear safety glasses or protective goggles and rubber gloves when handling this product. Harmful if inhaled. Avoid breathing dust. Remove and wash contaminated clothing before use. This product contains OXIDIZING AGENTS. Do not mix with other chemicals. Never add water to this product. Always broadcast directly into the pool. Contamination of this product may start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reseal container. Isolate container in open air or well ventilated area. Flood area with large volumes of water.

NOTE: Buyer assumes all responsibility for safety and use not in accordance with directions.

R4
27810 BIO



6/26/98
Interin language and size and
placement acceptable.
[Signature]

Application Treatments

1. Sunlight, wind, rain, water temperature and the number and frequency of bathers all affect the rate at which undesirable water conditions develop. Apply additional applications of Shock Plus accordingly.
2. Apply additional treatments at the rate of 1lb. of Shock Plus per 12,000 gallons of pool water.

STORAGE AND DISPOSAL: Keep this product dry in original tightly closed container until use. Store in a cool, dry, well ventilated area away from heat or open flame. Do not reuse container, but place in trash collection. Rinse thoroughly before discarding in trash.

HAZARD WARNINGS: Contains chlorinated isocyanurates.

DANGER: Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear safety glasses or protective goggles and rubber gloves when handling this product. Harmful if inhaled. Avoid breathing dust. Remove and wash contaminated clothing before use. This product contains OXIDIZING AGENTS. Do not mix with other chemicals. Never add water to this product. Always broadcast directly into

the pool. Contamination of this product may start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reuse container. Isolate container in open air or well ventilated area. Flood area with large volumes of water.

Questions or comments call 1-800-252-POOL.

Note: Buyer assumes all responsibility for safety and use not in accordance with directions.

MANUFACTURED FOR:
Recreational Water Products
Pool Time Division
Scottsdale, GA 30079

56162 R2
K60216
22816 PTM



SHOCK PLUS

4-IN-1 POOL SHOCK
Shock, Buffer, Clarifier and Floculant

No pre-dissolving

- Produces super clear water
- Shock and swim immediately
- Reduces need for other products

This product has not been accepted by the U.S. EPA for use as a disinfectant, sanitizer or algicide.

KEEP OUT OF REACH OF CHILDREN

DANGER

CAUTION: Shock Plus is a strong oxidizing agent. It may cause irritation to the eyes, skin, and clothing. Avoid contact with eyes, skin, and clothing. If contact occurs, flush with water. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wear safety glasses or protective goggles and rubber gloves when handling this product. Harmful if inhaled. Avoid breathing dust. Remove and wash contaminated clothing before use. This product contains OXIDIZING AGENTS. Do not mix with other chemicals. Never add water to this product. Always broadcast directly into the pool.

Net Weight: 1 Lb. (45 kg)

Patent Pending

WHY TO USE THIS PRODUCT:

The premium shock product is easier to use, performs more important functions than ordinary pool shocks. Shock Plus™ effectively destroys swimmer waste that cause cloudy water, musty odors and eye irritation by utilizing advanced patented technology. This technology combines shocks, water clarifiers, flocculants and buffers to provide super clear water with no cloudy residue and, with no increase in pH like ordinary shock products.

Shock Plus is safe for all pool types and should be added directly to the pool without pre-dissolving. Because it dissolves immediately and performs multiple functions, it works faster and more effectively, allowing swimming to resume within 15 minutes. Shock Plus is ideal for both last minute treatments and routine maintenance applications.

IMPORTANT NOTES:

1. DO NOT mix this product with any other swimmer, or pool chemical product, as violent reactions could occur.
2. When using other products, as outlined in directions for Pool Time Shock Plus, always follow label directions for those products. Use entire bag at one application.
3. As with other shock products, the product may promote metal stains on pool surfaces. Always check water for metal content and if present, remove with a Green & Scale Inhibitor prior to the addition of this product.
4. For removal of black, green or mustard Algae, use a corresponding Pool Time Algicide.

BEFORE YOU BEGIN:

1. Make sure all pool equipment is working properly, including pump, filter, skimmer and heater. Backwash filter following manufacturer's directions.
2. Check Alkalinity, pH and Calcium Hardness with a test kit. Adjust Alkalinity to 80-125 ppm for plaster pools, 125-150 for vinyl or fiberglass pools. Adjust pH to 7.2-7.8 by adding a pH decreaser or pH increaser. Adjust Calcium Hardness to 200-275 ppm for plaster pools, 175-225 for vinyl or fiberglass pools. Be sure to follow label directions.

NOW USE SHOCK PLUS:

Routine Maintenance

1. With pump running, broadcast 1lb. of Shock Plus per 12,000 gallons of pool water, directly into pool around edges. As with other shock products, DO NOT apply through skimmer or feeding device.
2. Keep circulation system on for 4-6 hrs. after addition.
3. For best results, apply product weekly as part of your maintenance routine.

6/26/98

Inter language of sig of
Placemak acceptable

Signature

017541607639

STORAGE AND DISPOSAL:

[illegible]

MANUFACTURED FOR:
Recreational Vehicle Products
Floor Treat Division
Spartanburg, GA 30079

56162 R2
K60216
22816 PTM

THE POOL: Installation of this product may limit a chemical reaction and potentially limit, but not stop, the oxidation rate and expansion of some of your constituents. In other words, do not expect chemical activity to continue at the same rate as it would without this. Flood with high volumes of water.

WARNING OF CONSUMERS: call 1-800-235-POOL.

Note: Driver of swimmers at responsibility for safety and use not in accordance with directions.

Net Weight: 1 Lb. (.45 kg)

[illegible]

DANGER

has not been accepted
FDA for use as a
sanitizer or algicide.

solving
super clear water
I swim immediately
need for other products

SHOCK PLUS 4-IN-1 POOL SHOCK

THE FINEST

WHY TO USE THIS PRODUCT

[illegible]

Review: Maintenance

1. With pump running, broadcast 1 lb. of Shock Plus per 12,000 gallons of pool water, directly into pool around perimeter of pool.
2. Keep circulation system on for 24 hrs. after addition.
3. For best results, apply product weekly as part of your maintenance regime.

7/15/98
Internal language & style of
placement acceptable.
[Signature]
[Signature]

ALL STATE LEGAL BODIES EDST1 RECYCLED



m

• SpaGuard Placard

**SpaGuard® Enhanced Shock has
not been accepted by the U.S.
EPA for use as a disinfectant, sani-
tizer or algicide.**

7/2/98
Interim language & placard
size acceptable.
For Review
by [Signature]
[Signature]

ALL STATE LEGAL AND JUDICIAL EDU. - CHIEF



SpaGuard.
OXIDIZER

Enhanced Shock

For Spas & Hot Tubs

Oxidizes and clarifies for beautiful water.

This product has not been accepted by the U.S. EPA for use as a disinfectant, sanitizer or algicide.

KEEP OUT OF REACH OF CHILDREN

DANGER

CAUSES IRREVERSIBLE EYE DAMAGE.

(See back panel for additional precautionary statements.)

FIRST AID: If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention. If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists. If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention. If swallowed: Drink large amounts of water. Do not induce vomiting. Avoid alcohol. Never give anything by mouth to an unconscious person. Call a physician or poison control center.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

IN THE EVENT OF A MEDICAL EMERGENCY CALL 1-303-623-5716.

MANUFACTURED BY:

BIO-LAB, INC., Decatur, Georgia 30031 USA



NET WEIGHT: 2 Lbs. (.9 Kg)

This product is specially formulated to eliminate eye irritating chloramines, musty odors, to correct most cloudy conditions and to restore spa water sparkle. Special ingredients aid the filter in removing small suspended particles to further enhance water clarity.

This product dissolves quickly and completely. (Under cold water conditions, brush after application to speed dissolving.) Do not allow undissolved material to lie in contact with bleachable surfaces such as vinyl or paint. No premixing is required and no undissolved solids remain. May be used with chlorine, ozone, bromine, and ionization systems. It is formulated for use with all types of spa surfaces. DO NOT use in spas sanitized with biguanides.

MEASUREMENT AND DOSING: Use all level measurements. 3 tablespoons per 500 gallons.

DIRECTIONS FOR USE: Read entire label and use strictly in accordance with precautionary statements and directions.

1. Test and adjust spa water pH to 7.2 - 7.6 prior to application of SPAGUARD® ENHANCED SHOCK.
2. Apply product when spa is not in use.
3. With pump in operation, apply the entire treatment dosage at one time. Broadcast across water's surface.
4. Apply directly to spa water only. Do not add through a skimmer or any automatic dispensing device.
5. This product is pH neutral and usage will not upset spa water balance.
6. Spa use can resume when your test kit reading indicates a sanitizer level of 3.0 ppm or less.
7. Add SPAGUARD ENHANCED SHOCK once a week. Additional applications are required after periods of extremely heavy spa usage, significant rainfall or the appearance of cloudy water.

STORAGE: Keep this product dry in original tightly closed container until use. Store in a cool, dry, well ventilated area away from heat or open flame. Do not reuse container, but place in trash collection. Rinse thoroughly before discarding in trash.

HAZARD WARNINGS: Contains chlorinated isocyanurates.

DANGER: Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear safety glasses or protective goggles and rubber gloves when handling this product. Harmful if inhaled. Avoid breathing dust. Remove and wash contaminated clothing before use. This product contains OXIDIZING AGENTS. Do not mix with other chemicals. Never add water to this product. Always broadcast directly into the spa. Contamination of this product may start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not seal container. Isolate container in open air or well ventilated area. Flood area with large volumes of water.

NOTE: Buyer assumes all responsibility for safety and use not in accordance with directions.

R2
42230 BIO



7/2/98

Inter language ed sig ed
Blair-Brown Placement acceptable



• SIMPLICITY Placard

**Simplicity® Clear has not been
accepted by the U.S. EPA for use
as a disinfectant, sanitizer
or algicide.**

7/2/98

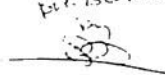

Interim language of placard
Size acceptable.

Rev. Blomberg



• Synergy Placard

**Synergy[®] Clear has not been
accepted by the U.S. EPA for use
as a disinfectant, sanitizer or
algicide.**

7/2/98
Inter language and placard size
acceptable.
E.E. B...



• SNAP Placard

**Snap[®] Clear has not been
accepted by the U.S. EPA for use
as a disinfectant, sanitizer
or algicide.**

7/2/58

French language - D placard
Size acceptable.

Bill Banning




ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

H



Exclusively designed for use with the Simplicity System.

Patented technology for broadcast over the water surface at the deep end of the pool. Safe and easy to use.

This product has not been accepted by the U.S. EPA for use as a disinfectant, sanitizer or algicide.

FIRST AID - EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention. **IF ON SKIN:** Wash with plenty of soap and water. Get medical attention if irritation persists. **IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention. **IF SWALLOWED:** Drink large amounts of water. Do not induce vomiting. Avoid alcohol. Never give anything by mouth to an unconscious person. Call a physician or poison control center. **NOTE TO PHYSICIAN:** Probable mucousal damage may contraindicate the use of gastric lavage. **IN THE EVENT OF A MEDICAL EMERGENCY CALL 1-303-623-5716.**

NOTE: Buyer assumes all responsibility for safety and use not in accordance with directions.

**KEEP OUT OF REACH OF CHILDREN
DANGER**

NET WEIGHT 1 Lb. (45 Kg)

Made exclusively for use with the SIMPLICITY SYSTEM, SIMPLICITY CLEAR® replaces several products with one convenient premeasured product. This specially formulated product, a blend of multiple oxidizers, conditioners and water enhancing buffers, keeps your pool water sparkling clear. SIMPLICITY CLEAR provides superb water clarity, improved swimmer comfort, and convenient "Once A Week" application. Designed for use with all types of pool surfaces, SIMPLICITY CLEAR allows swimming 15 minutes after application.

DIRECTIONS FOR USE: Read entire label and use strictly in accordance with labeled warnings and directions.

INITIAL STARTUP AND SPRING OPENING: Bring a water sample to your SIMPLICITY SYSTEM dealer for initial testing and start-up procedures. Superchlorinate pool water using Hydrotech® Hydrosure® 60 at a dosage rate of 1 lb. for every 10,000 gallons of pool water. Test for free chlorine 24 hours after shocking. If your test results do not read at least 2 ppm of chlorine, repeat the superchlorination procedure. After initial startup, follow the Routine Maintenance Instructions below for your SIMPLICITY CLEAR applications.

ROUTINE MAINTENANCE: Apply SIMPLICITY CLEAR weekly at a dosage rate of one-half container for every 10,000 gallons of pool water. Turn on the pump before adding SIMPLICITY CLEAR and allow pool to circulate for 4-8 hours after application for best results. Broadcast the SIMPLICITY CLEAR dosage over the water surface at the deep end of the pool. To prevent possible damage to pool surface, use a pool brush to disperse any granules which may have settled to the bottom of the pool. Do not apply SIMPLICITY CLEAR through a skimmer or any automatic dispensing device. Swimming may be resumed 15 minutes after applying SIMPLICITY CLEAR.

OFF SEASON MAINTENANCE: Unheated pools which are kept circulating during the Winter season require less frequent additions of SIMPLICITY CLEAR. Apply product every three weeks following instructions and dosage for routine maintenance.

IMPORTANT: Only a SIMPLICITY SYSTEM dealer can test for all components and proper balance of a SIMPLICITY SYSTEM. Be sure to have your water tested by a SIMPLICITY SYSTEM dealer and add recommended products following label directions on each product.

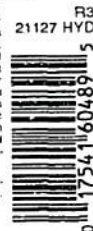
STORAGE: Keep this product dry in original tightly closed container until use. Store in a cool, dry, well ventilated area away from heat or open flame. Do not reuse container, but place in trash collection. Rinse thoroughly before discarding in trash.

HAZARD WARNINGS: Contains chlorinated hydrocarbons.

DANGER: Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear safety glasses or protective goggles and rubber gloves when handling this product.

Harmful if inhaled. Avoid breathing dust. Remove and wash contaminated clothing before use. This product contains OXIDIZING AGENTS. Do not mix with other chemicals. Never add water to this product. Always broadcast directly into the pool. Contamination of this product may start a chemical reaction and generate heat. Hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reuse container. Dispose container in open air or well ventilated area. Flood area with large volumes of water.

*The Simplicity System is a patented method for treatment of swimming pools. Additional patents pending. Manufactured for ASEPS Hydrotech Division, Avondale Estates, GA 30002



7/2/98

Interim language and size of placement acceptable.

Bill Brown

By [Signature]

SPARKLING CLEAR WATER

SYNERGY.

Clear™

Exclusively designed for use with the Synergy System.

Patented technology.*

Broadcast over the water surface at the deep end of the pool. Once a week application.

This product has not been accepted by the U.S. EPA for use as a disinfectant, sanitizer or algicide.

OMNI

KEEP OUT OF REACH OF CHILDREN
DANGER

(See back panel for additional precautionary statements.)
FIRST AID: IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists. IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention. IF SWALLOWED: Drink large amounts of water. Do not induce vomiting. Avoid alcohol. Never give anything by mouth to an unconscious person. Call a physician or poison control center. NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. IN THE EVENT OF A MEDICAL EMERGENCY CALL 1-303-623-5716.

NOTE: Buyer assumes all responsibility for safety and use not in accordance with directions.

NET WEIGHT 1 Lb. (.45 kg)

Made exclusively for use with the SYNERGY SYSTEM, SYNERGY CLEAR™ replaces several products with one convenient premeasured product. This specially formulated product, a blend of multiple oxidizers, clarifiers and water enhancing buffers, keeps your pool water sparkling clear. SYNERGY CLEAR provides superb water clarity, improved swimmer comfort, and convenient "Once A Week" application. Designed for use with all types of pool surfaces, SYNERGY CLEAR allows swimming 15 minutes after application.

DIRECTIONS FOR USE: Read entire label and use strictly in accordance with hazard warnings and directions.

INITIAL STARTUP AND SPRING OPENING: Bring a water sample to your SYNERGY SYSTEM dealer for initial testing and start-up procedures. Superchlorinate pool water using OMN™ BREAKOUT 60 at a dosage rate of 1 lb. for every 10,000 gallons of pool water, following label directions. Test for free chlorine 24 hours after shocking. If your test results do not read at least 2 ppm of chlorine, repeat the superchlorination procedure. After initial start-up, follow the Routine Maintenance instructions below for your SYNERGY CLEAR applications.

ROUTINE MAINTENANCE: Apply SYNERGY CLEAR weekly at a dosage rate of one-half container for every 10,000 gallons of pool water. Turn on the pump before adding SYNERGY CLEAR and allow pool to circulate for 4-8 hours after application for best results. Broadcast the SYNERGY CLEAR dosage over the water surface at the deep end of the pool. To prevent possible damage to pool surface, use a pool brush to disperse any granules which may have settled to the bottom of the pool. Do not apply SYNERGY CLEAR through a skimmer or any automatic dispensing device. Swimming may be resumed 15 minutes after applying SYNERGY CLEAR.

OFF SEASON MAINTENANCE: Unheated pools which are kept circulating during the winter season require less frequent additions of SYNERGY CLEAR. Apply product every three weeks following instructions and dosage for routine maintenance. IMPORTANT: Only a SYNERGY SYSTEM dealer can test for all components and proper balance of a SYNERGY SYSTEM. Be sure to have your water tested by a SYNERGY SYSTEM dealer and add recommended products following label directions on each product.

STORAGE: Keep this product dry in original tightly closed container until use. Store in a cool, dry, well ventilated area away from heat or open flame. Do not reuse container, but place in trash collection. Rinse thoroughly before discarding in trash.

HAZARD WARNINGS: Contains chlorinated isocyanurates.

DANGER: Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear safety glasses or protective goggles and rubber gloves when handling this product. Harmful if inhaled. Avoid breathing dust. Remove and wash contaminated clothing before use. This product contains OXIDIZING AGENTS. Do not mix with other chemicals. Never add water to this product. Always broadcast directly into the pool. Contamination of this product may start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reuse container. Dispose of this product in open air or well ventilated area. Flood area with large volumes of water.

*The Synergy System is a patented method for treatment of swimming pools. Additional patents pending.

Manufactured for: ASEPSIS
Omni Division
Avondale Estates, GA 30002

R2
21127 OMN



7/2/98

Interim language & size of placement acceptable.

Bob Blum

K26

[Signature]



Exclusively designed
for use with the SNAP® System.

Patented technology * Broadcast over the
water surface at the deep end of the pool.
Once a week application.

This product has not been accepted by the U.S. EPA
for use as a disinfectant, sanitizer or algicide.

KEEP OUT OF REACH OF CHILDREN DANGER

(See back panel for additional precautionary statements.)
FIRST AID: IF IN EYES: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention. IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists. IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention. IF SWALLOWED: Drink large amounts of water. Do not induce vomiting. Avoid alcohol. Never give anything by mouth to an unconscious person. Call a physician or poison control center. **NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. **IN THE EVENT OF A MEDICAL EMERGENCY CALL 1-303-623-5716.**

NOTE: Buyer assumes all responsibility for safety and use not in accordance with directions.

Manufactured for: ASEPSIS, Guardex Division,
Avondale Estates, GA 30002

NET WEIGHT 1 Lb. [45 kg]

Made exclusively for use with the SNAP SYSTEM, SNAP CLEAR® replaces several products with one convenient premeasured product. This specially formulated product, a blend of multiple oxidizers, clarifiers and water enhancing buffers, keeps your pool water sparkling clear. SNAP CLEAR provides superb water clarity, improved swimmer comfort, and convenient "Once A Week" application. Designed for use with all types of pool surfaces, SNAP CLEAR allows swimming 15 minutes after application.

DIRECTIONS FOR USE: Read entire label and use strictly in accordance with hazard warnings and directions.

INITIAL START-UP AND SPRING OPENING: Bring a water sample to your SNAP SYSTEM dealer for initial testing and start-up procedures. Superchlorinate pool water using Guardex® Super Chlorinator 60 at a dosage rate of 1 lb. for every 10,000 gallons of pool water. Test for free chlorine 24 hours after shocking. If your test results do not read at least 2 ppm of chlorine, repeat the superchlorination procedure. After initial start-up, follow the Routine Maintenance instructions below for your SNAP CLEAR applications.

ROUTINE MAINTENANCE: Apply SNAP CLEAR weekly at a dosage rate of one-half container for every 10,000 gallons of pool water. Turn on the pump before adding SNAP CLEAR and allow pool to recirculate for 4-6 hours after application for best results. Broadcast the SNAP CLEAR dosage over the water surface at the deep end of the pool. To prevent possible damage to pool surface, use a pool brush to disperse any granules which may have settled to the bottom of the pool. Do not apply SNAP CLEAR through a skimmer or any automatic dispensing device. Swimming may be resumed 15 minutes after applying SNAP CLEAR.

OFF SEASON MAINTENANCE: Unheated pools which are kept circulating during the winter season require less frequent additions of SNAP CLEAR. Apply product every three weeks following instructions and dosage for routine maintenance.

IMPORTANT: Only a SNAP SYSTEM dealer can test for all components and proper balance of a SNAP SYSTEM. Be sure to have your water tested by a SNAP SYSTEM dealer and add recommended products following label directions on each product.

STORAGE: Keep this product dry in original tightly closed container until use. Store in a cool, dry, well ventilated area away from heat or open flame. Do not reuse container, but place in trash collection. Rinse thoroughly before discarding in trash.

HAZARD WARNINGS: Contains chlorinated hydrocarbons. **DANGER:** Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear safety glasses or protective goggles and rubber gloves when handling this product.

Hazardous if inhaled. Avoid breathing dust. Remove and wash contaminated clothing before use. This product contains OXIDIZING AGENTS. Do not mix with other chemicals. Never add water to this product. Always broadcast directly into the pool. Contamination of this product may start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reuse container. Isolate container in open air or well ventilated area. Flood area with large volumes of water.

*The SNAP System is a patented method for treatment of swimming pools. Additional patents pending.



7/2/98

Interim language and sig and placement acceptable.

Bill Brannen

• Bermuda Blue Enhancer™ Placard


Bermuda Blue Enhancer™ has not been accepted by the U.S. EPA for use as a disinfectant, sanitizer or algicide.



7/2/98

Inter language CD
discarded
acceptable.

Bob Brown,
12/7

ALL-STATE® LEGAL WP 999-0010 E0511 RECYCLED 



Enhancer

Restores sparkle to pool water.

Part 4: Once-a-month

*This product has not been accepted by the U.S. EPA
for use as a disinfectant, sanitizer or algicide.*

KEEP OUT OF THE REACH OF CHILDREN
DANGER: CAUSES SKIN AND EYE BURNS
MAY BE FATAL IF SWALLOWED

(See back panel for additional precautionary statements.)

NET WEIGHT: 5 Lbs. (2.27 kg)

MANUFACTURED BY: BIO-LAB, INC., Decatur, Georgia 30030 USA



7/2/98

*In teen language
I size and placement
acceptable.*

Bob Bremis

by

PART

Once-A-Month

Bermuda Blue™ Enhancer™ is a specially formulated oxidizer and clarifier which eliminates organic contaminants which accumulate from swimmer wastes and environmental sources. Bermuda Blue Enhancer keeps the swimming environment clean and clear for the optimum Bermuda Blue experience.

Bermuda Blue Enhancer utilizes advanced patented technology. It is specially formulated to eliminate eye irritating elements and musty odors, to correct most off-color greenish or cloudy conditions and to restore pool water sparkle. Special agents aid the filter in removing small suspended particles to further enhance water clarity.

This product dissolves quickly and completely. No prebroming is required and no undissolved solids remain. It is formulated for use with all types of pool surfaces.

DIRECTIONS FOR USE: Read entire label before applying product and use strictly in accordance with directions and hazard warnings.

With the pump in operation, apply the entire treatment dose at one time. Broadcast evenly around edges in deep end of pool with special attention to areas of the pool where water circulation is the poorest. Apply directly to pool water only. Do not add through any automatic dispensing device. This product is pH neutral and usage will not upset pool balance.

For best results, test and adjust pool water pH to 7.2-7.6 prior to application. Apply product when pool is not in use.

ROUTINE MAINTENANCE: To maintain a sparkling clear fresh pool, add 2.5 pounds of product per 10,000 gallons of water once a month.

NOTE: This product should be added first and allowed to circulate for 12 hours before adding the Bermuda Blue Extender™. Under cold water conditions, brush after application to speed dissolving. Do not allow undissolved materials to lie in contact with bleachable surfaces such as vinyl or paint.

ADDITIONAL TREATMENTS: Additional applications may be required after periods of extremely heavy pool usage, significant rainfall or the appearance of off-color greenish or cloudy water. Apply additional treatments at the rate of 2.5 pounds per 10,000 gallons.

FIRST AID: IF IN EYES: Hold eyelids open and flush with a gentle steady stream of water for 15 minutes. Get medical attention. **IF ON SKIN:** Brush off excess and wash with plenty of soap and water. Get medical attention if irritation persists. **IF INHALED:** Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. Get medical attention. **IF SWALLOWED:** Drink large amounts of water. Do not induce vomiting. Avoid alcohol. Never give anything by mouth to an unconscious person. Call a physician or poison control center. **NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. **IN THE EVENT OF A MEDICAL EMERGENCY CALL 1-303-623-5716.**

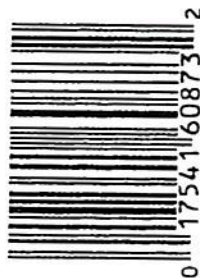
STORAGE AND DISPOSAL: Keep this product dry in original tightly closed container until used. Store in a cool, dry, well ventilated area away from heat or open flame. Do not reuse container, but place in trash collection. Rinse thoroughly before discarding in trash.

HAZARD WARNINGS: Contains chlorinated isocyanurates, boron salts, and sulfates. **DANGER:** Highly corrosive. Causes skin and eye burns. May be fatal if swallowed. Do not get in eyes, on skin or on clothing. Wear safety glasses or protective goggles and rubber gloves when handling this product. Harmful if inhaled. Irritating to nose and throat. Avoid breathing dust and fumes. Remove and wash contaminated clothing before use. **STRONG OXIDIZING AGENT:** Do not mix with other chemicals. Never add water to this product. Always broadcast directly into the pool.

Contamination of this product may start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reset container. Isolate container in open air or well ventilated area. Flood area with large volumes of water.

NOTE: Buyer assumes all responsibility for safety and use not in accordance with directions.

R1
36630 B:0



ALL STATE* LEGAL 800-777-8848 EDS11 RECYCLED





PoolTime.

Product Information

Shock Treatments

Removes Swimmer Wastes
Restores Water Sparkle

Cosmetics, suntan lotion, perspiration and other swimmer wastes cannot be filtered out of pool water and are resistant to normal levels of chlorine. Shock treatment chemicals boost the chlorine level temporarily to

remove swimmer wastes and restore water sparkle.



BALANCERS

SANITIZERS

SHOCK TREATMENT

ALGICIDES

SPECIALTY PRODUCTS

SPA PRODUCTS

HOME PAGE

| [Balancers](#) | [Sanitizers](#) | [Shock Treatment](#) |
| [Algicides](#) | [Specialty Products](#) | [Spa Products](#) |
| [PoolTime Homepage](#) |

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serve to oxidize
and remove these
materials.



Product Information

Sanitizers

Bacteria enters pool water continuously from many sources — fill water, swimmer wastes, rain and other environmental factors. The most widely used pool sanitizer to combat this situation is chlorine. Pool Time offers a wide range of various forms of chlorine to meet all your preferences and needs: GRANULARS, 1" TABLETS AND 3" TABLETS.

GRANULAR DRY CHLORINATOR

Fast dissolving chlorine granules provide effective chlorination at economical prices. Can be hand-fed by broadcasting over the pool surface or predissolved in a bucket of pool water and added when temperature is below 70 degrees.



Clarity GRANULAR
CHLORINATING
CONCENTRATE

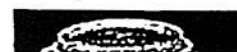
Benefits Include:

- Costs up to half as much as other leading granulars over a season
- No pre-dissolving
- Contains a stabilizer - lasts longer
- Easy to handle and store
- Dissolves "instantly" and completely
- No scaling
- Safe for all pools

1" TABLETS

Slow-dissolving, stabilized chlorine tablets work in floaters and most automatic chlorinators. They are highly compressed to dissolve slowly, releasing the right amount of chlorine into the water. No gummy binders or release agents to clog feeders and equipment. Sizes to fit every need.

FLOATER



**AQUA
CHEM**

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as an oxidizer,
clarifier and
floculant

**New Products**

Shock Plus™ is a revolutionary, new patented shock product from Recreational Water Products. It stores and works better than other shock products. Shock Plus offers many benefits when compared to Calcium Hypochlorite based shocks.

Consumer Benefits	Shock Plus	Cal Hypo Shocks
No predissolving, add directly to pool	Yes	No
Shock that produces clearest water the fastest and stays clearer longer*	Yes	No
After treatment, wait before entering pool	15 minutes	8 hours
Contains built in clarifiers	Yes	No
Reduces need for clarifiers and pH adjusters	Yes	No
* Laboratory test proves that Shock Plus reduces turbidity more, faster and longer than calcium hypochlorite shocks.		

This exciting, patented, safe, and friendly product is only available from Recreational Water Products. Shock Plus is the first product in a complete line of safer (storage) swimming pool products.

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Shock Treatment



To supplement routine chlorination, periodic superchlorination by Shock Treatment is always advisable, especially under conditions of elevated temperature, heavy rains and high usage. Shock Treatment chemicals quickly and temporarily

raise the chlorine level to destroy the organisms resistant to levels of available chlorine in the pool or spa.

Aqua Chem Shock Treatment chlorinators come in both liquid and dry forms, in a wide selection of container sizes for pools and spas of all volumes. They are non-stabilized and lower in cost, making them suitable also for routine sanitization by budget-minded consumers.

A related product, Shock and Swim, regenerates chlorine by shocking without adding new chlorine, which allows immediate pool or spa use. Regular shock treatment products do not allow for immediate use of the pool or spa.

A new product, Vinyl Pool Shock is specifically formulated for vinyl pools. It does not require pre-dissolving and will not bleach vinyl-lined surfaces. And, regular use of this product will not add calcium to the water.

NEW!! Shock Plus

NOTE: Not all sizes are available at all loactions.

Product Description	Unit Weight
Shock Treatment	1.0 lb.
Shock Treatment	4.0 lb.
Shock Treatment	8.0 lb.
Vinyl Pool Shock	10 oz.
Granular Chlorinizer	25 lb.
Granular Chlorinizer	75 lb.
Liquid Chlorinizer	1 gal.
Shock & Swim	4.0 lb.

[pH Adjusters](#)
[Stabilized Chlorine](#)
[Shock Treatment](#)
[Algaecides](#)
[Specialties & Accessories](#)

Bio Lab will remove this language and propose substitute language



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[About Aqua Chem](#)
[Product Information](#)
[Find A Retailer](#)
[Maintenance/ Troubleshooting](#)
[Seasonal Tips](#)
[Home](#)

Specialty Chemicals



To make every pool and spa invitingly clean and sparkling, the Aqua Chem line includes its own specialty chemicals. Clarifier removes small particulate impurities. Stabilizer reduces chlorine loss from decomposition when non-stabilized chlorine products are used. Stain and Scale Inhibitor ties up iron, copper and manganese, as well as calcium to prevent staining and scaling of pool surfaces and equipment. Filter Aid, a pure diatomaceous earth (D.E.), improves filtering efficiency.

Total alkalinity is the key to water balance; it is the water's ability to resist dramatic changes in pH. Alkalinity Plus raises low alkalinity levels to avoid these problems. This product helps keep the pH within the proper range.

Calcium hardness is an important water balance level; low levels cause etching of plaster surfaces and corrosion of equipment. Calcium Hardness Increaser raises low levels and keeps your pool surfaces and equipment healthy.

Biolab will remove this language

[Yellow or mustard colored spots on pool surfaces can be almost impossible to remove with normal algaecides. However, Mustard Free, when combined with Shock Treatment, will clean up the problem.]

You will appreciate the one-stop shopping these specialties provide for your total pool product needs.

Product Description	Package Sizes
Stabilizer	3.0 lb.
Stain & Scale Inhibitor	1 qt.
Calcium Hardness Increaser	4 lb.
Clarifier	1 qt.
Clarifier	1 gal.
D. E. Filter Aid	24 lb.
D. E. Filter Aid	10 lb.
Alkalinity Plus	4 lb.

pH - A measure of acidity or basicity in your water, on a scale of 0 to 14, 7 being neutral.

PPM - Parts per million, the standard measure of any chemical's concentration in your water.

ROUTINE CHLORINATION - The practice of continuously adding small amounts of chlorine to your pool or spa, whether by hand or by using a floater or feeder, to meet its chlorine demands.

SCALE - White, gray or brownish spots on surfaces or equipment caused by water that's out of balance-that is, high pH, high total alkalinity or water that's too hard.

✓ **SHOCK OR SHOCKING** - The practice of periodically adding supplemental chlorine, or other chemicals, to ~~break up or oxidize chloramines and allow free chlorine to appear again.~~

STABILIZED CHLORINE - Chlorine that contains cyanuric acid to condition it against the adverse effects of the sun. Lasts up to 5 times longer than unstabilized chlorine.

STABILIZER - A supplement that must be added to all pools once each summer, and regularly to pools that use unstabilized chlorine, to help condition the chlorine against the adverse effects of the sun.

TEST KIT - An easy-to-use kit used to test various factors in your pool water. Just fill the appropriate test tube with a sample of your water, then follow directions, usually adding a few drops of a specified solution. The water will change colors, indicating the result of the test.

TEST STRIPS - Easy-to-use strips used to test various balancing factors in your water. Just follow directions and dip one into your water, then wait a few seconds-the color on the strip indicates the result of the test. Test strips are the most accurate way to test for free chlorine.

TOTAL CHLORINE - The total amount of chlorine in your water-combination of chlorine in the form of chloramines and free chlorine.

UNSTABILIZED CHLORINE - Chlorine that does not contain cyanuric acid to condition it against adverse effects of the sun. Lasts as little as one fifth as long as stabilized chlorine.

WINTERIZING - The act of closing your pool for the winter months. Taking a few, simple steps to winterize your pool will protect it as well as make it easier to open your pool when the weather warms up.

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language and
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language.

So, as crazy as it sounds, when your pool smells strongly of chlorine, what's actually needed is more chlorine. Because what you're smelling are chloramines, and raising the chlorine level will break them up.

Shocking your pool does just that. Shocking refers to adding chlorine (or, in some cases, other chemicals) in much larger than routine amounts. The effect is to break up or oxidize chloramines and allow free chlorine to appear again.

Shocking also eliminates and prevents algae and cloudy water. The bottom line is this. In addition to routinely chlorinating your pool, you must also shock it to keep the free or available chlorine level up. The point here is to realize the importance of free chlorine (as opposed to total chlorine) and how shocking affects it. See Testing and Adjusting the Water for specific shocking instructions.

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inconvenient and less cost-effective in the long run.

Aqua Chem Clarity Stabilized Granules are a perfect example of the benefits of stabilized chlorine. They're faster dissolving than unstabilized granules (Calcium Hypochlorite). And they dissolve completely, which means there's no residue. Clarity Stabilized Granules will have less effect on your pH. Plus, they just plain last longer, up to five times longer. So you can see why we say stabilized chlorine is the best. And Aqua Chem has several forms of this long-lasting routine chlorinator to choose from.

We've already discussed Clarity Stabilized Granules. To use them, you just scatter or broadcast the granules over the deep end of your pool.

1" and 3" Stabilized Tablets are two of the easiest ways to routinely chlorinate your pool. 1" Tablets are great for floaters and feeders and 3" Tablets are perfect for skimmer application, feeders and floaters.

Finally, our **Stabilized Floater** has several small nubs on each side that correspond to your pool size. You just cut off the correct nubs to release a just-right flow of chlorine into your pool. When the floater flips on its side, you know it needs replacing. It's that simple.

Shock Plus is for Shocking

✓ As you surely know by now, ~~when it's time to raise your free chlorine level, it's time to shock.~~ *routine shocking is an integral part of proper pool maintenance* And you can use any of the Aqua Chem products listed below.

Shock Plus, Shock Treatment and Liquid Chlorinizer are chlorine products that will oxidize or break down chloramines and bring up your free chlorine level. Shock Plus is highly recommended because it is a granular 4-in-1 shock product that is pH balanced (unlike other shock products) and contains clarifiers and flocculants to help clear up water fast. You can also swim 15 minutes after applying Shock Plus! Shock Plus can be used in any type of pool and requires no pre-dissolving! It is available in convenient 1# bags which treat 12,000 gallons of water.

should be It is important to remember that Shock Plus, like other shock products, ~~works most effectively when~~ used in conjunction with a stabilized sanitizer (1" or 3" tablets, Clarity™, Floaters or automatic chlorinators) as part of a regular maintenance program. It is also recommended that 10% or 60% algaecide be used to prevent the formation of algae.

Sometimes, no matter how well you take care of your pool water, algae sneaks up on you. So Aqua Chem offers four products to help you control algae.

Algaecide Liquid and Algaecide Liquid Concentrate are effective at preventing algae infestations. They will help prevent black, green and mustard colored algae.

Black-Out is specially designed to kill black and green algae in white plaster pools. And **Vinyl Pool Algae Killer** is specifically designed to do the same in vinyl pools. To treat mustard colored algae, use our specialty product, **Mustard Free**.

Specialty & Accessory Products

Within the specialty products category you'll find some products we've mentioned already and others that are new to you.

You may remember that **Alkalinity Plus** is what you use to raise your total alkalinity, which can be so important in adjusting your pH and, therefore, overall water balance. Alkalinity Plus is considered a specialty item because total alkalinity is checked and adjusted so seldom during the summer season - only once a month.

Stabilizer is also considered a specialty product. Again, this is because it's not one of the main things you'll need to worry about during the season. Just check stabilizer once at the beginning of summer (assuming you use stabilized chlorine for routine chlorination) and adjust as necessary.

Calcium Hardness is another level tested infrequently, once or twice per season. Aqua Chem's **Calcium Hardness Increaser** will raise your hardness to the desired range.

Another item, somewhat related to calcium hardness, is Aqua Chem **Stain & Scale Inhibitor**. It helps tie up scale causing agents that scale up equipment and make your pool cloudy. But primarily Stain & Scale is used to tie up metals in your pool water so they don't stain your surfaces.

There's also **Clarifier**, which binds dirt particles that are normally too small for your filtering system. Clarifier brings the sparkle back to cloudy or hazy water.

✓ A unique specialty product is Aqua Chem **Mustard Free**. When used in conjunction with Aqua Chem's ~~Shock Plus~~ **Shock Treatment** or **Vinyl Pool Shock**, it rids pools of mustard colored spots. Other Aqua Chem specialty products include **Filter Aid**, for diatomaceous earth filters, and **3-Way Test Kits**, **6-Way Test Kits**, and **4-Way Test Strips**. Also, look for a variety of Aqua Chem accessories including thermometers, floating chlorine dispensers, vacuum heads, brushes, skimmers, hoses and vinyl repair kits.

It's all because, at Aqua Chem, we know how wonderful a pool can be. How beautiful. How rewarding. And we know how important clean, healthy water is. Which is why we sponsor the U. S. Swim Team. We're proud to be the company to bring clean, healthy water to the athletes who could bring home the gold.

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Stabilizer

X

Adjusting pH

As we mentioned earlier, pH is a measure of acidity or basicity in your pool water. And what you want is a pH level between 7.2 and 7.6. Test your pH twice a week. If your pH is too low, add Aqua Chem **pH Add**.

If your pH is too high, add Aqua Chem **pH Decreaser** (for minimum effect on total alkalinity, use the granular form and broadcast it evenly over your entire pool). You'll find details on the [dosage chart](#).

Adjusting Total Alkalinity

Many pool owners, through lack of knowledge, forgo alkalinity testing altogether. This is a mistake, as unbalanced alkalinity promotes equipment and surface corrosion, and destabilizes pH. To insure normal equipment life and stable pH levels, we recommend testing for total alkalinity about once a month.

Total alkalinity should be between 80 and 125 ppm for plaster pools and 125-150 ppm for vinyl, fiberglass and painted pools. If it's too low, add Aqua Chem **Alkalinity Plus**. You'll find details on the [dosage chart](#). If it's too high, add pH Decreaser. (For maximum effect use the liquid form, if it's available, and pour it into one area in the deep end of your pool.)

Adjusting Water Hardness

In most areas of the country, you only need to test your water's hardness once all summer, and the desired range is between 200 and 250 parts per million (ppm) for plaster pools, and 175-225 ppm for vinyl, fiberglass and painted pools. If your water is above 500, simply drain some water from the pool and replace it with new water from a garden hose. There is an exception to this rule, however, since high water hardness is really only a problem in combination with high pH and high total alkalinity. So, if pH and total alkalinity are on the low side, water hardness up to 500 or 600 ppm may not be a problem.

If your calcium is low, add Aqua Chem **Calcium Hardness Increaser**.

Adjusting Free Chlorine

By now you know that free chlorine is really the critical chlorine measurement-much more so than total chlorine. Because your free chlorine level is what reflects your pool's ability to keep sanitizing.

But you must do bi-weekly tests for both free and total chlorine, then compare the two measurements, before you can tell what's really going on in your pool and make any adjustments.

For example, if your free chlorine is low (below 1.0 ppm) but your total chlorine is high (over 2.0), you know there's plenty of chlorine in your pool-but it's there in the undesirable form of chloramines. Which means

oxidize and destroy the
it's time to shock to ~~raise free chlorine~~ chloramines.

free On the other hand, if both your free and total chlorine levels are low (below 1.0), you know that your pool just isn't getting enough chlorine on a routine basis. So you need to raise your routine chlorination dosages until ~~total~~ total chlorine is up to 1.0 to 3.0 parts per million (ppm). Then test free chlorine and shock if necessary.

Aqua Chem 4-Way Test Strips are the most accurate way to measure free chlorine. Details and dosages for routine chlorination, adjusting free chlorine and shocking are on the dosage chart.

Shocking

~~To supplement shocking as just described above, we recommend shocking every two weeks and after heavy pool use or rainstorms to keep your pool clean and algae-free.~~ You'll find details on the dosage chart.

Adjusting Stabilizer

In the next section where different types of chlorine are discussed, we will explain unstabilized and stabilized chlorine. And we'll recommend you use stabilized chlorine-the more convenient, one-step sanitizer.

But even then, just once during the season (ideally when you open your pool), use a 6-Way Test Kit to determine your stabilizer level. It should be between 30 and 40 parts per million (ppm). If it's not, add Aqua Chem Stabilizer following the dosage chart.

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	Frequently used spa	Infrequently used spa
Alkalinity	Weekly	Monthly
pH	Daily	Weekly
Calcium hardness	Fresh fill water	Fresh fill water

2. SANITIZE

The second step in Aqua Chem's easy three step program is to sanitize your spa. Proper sanitation plays a very important part in keeping your spa or hot tub free of algae and bacteria. Due to its role in keeping everything clean, sanitizers should be tested and adjusted several times a week to maintain a healthy, clean spa. This routine should be followed whether the spa is in use or not.

Bromination

The preferred form of sanitation for spas and hot tubs is bromine. The key reason is that bromine kills more bacteria and algae at higher temperatures than does chlorine. In addition, unlike chlorine, bromine spas produce much less odor.

Keep your bromine level between 2.0 and 4.0 ppm. If your bromine level should fall below 2.0 ppm, add more Aqua Chem **Brominating Tablets**, or add a self dispensing Aqua Chem **Brominating Floater** (color coded green).

Chlorination

An excellent form of sanitation for spas and hot tubs is chlorine. Keep chlorine levels at 1.0 - 3.0 ppm. If your chlorine level should fall below 1.0 ppm, add Aqua Chem **Stabilized Granules** (color coded yellow).

3. SHOCK

Superchlorination or shock treatment is a procedure designed to raise the sanitizer level of your spa to a range that will kill or oxidize the contaminants which are resistant to normal bromine or chlorine levels.

Shock treatments should be performed every two to four weeks depending on spa temperature and usage. If temperatures are high and your spa is used frequently, shock every two weeks. If spa temperatures are kept low and usage is infrequent, every four weeks is fine. We also recommend shocking your spa after heavy bather loads, or (if it is outside) after heavy rains.

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Using the Right Products for the Job

Glossary

Aqua Chem spa products are designed for maximum efficiency with a minimum of effort. So you can spend less time maintaining your spa or hot tub, and more time soaking in it.

Each product is color coded so it's easy to know you're using the right product for the job. Some products needed, but not carried in the spa line of chemicals, can be obtained through Aqua Chem's pool line, most likely found in the same aisle at your local retailer.

Red is for pH Adjusters

You will find Aqua Chem pH Decreaser and pH Add in our spa line of chemicals.

Yellow is for Poolline Chemicals

Aqua Chem **Stabilized Granules** for spas come in fast dissolving granular form, perfect for your hot water needs. The preferred sanitation method for spas, bromine, is found under the green color code.

Orange is for Shocking

When you need to shock your spa, look for Aqua Chem **Shock Treatments** in the orange color code. ~~We recommend using Shock Plus™ because it dissolves quickly, and a 1 lb. bag treats 12,000 gallons.~~

Look for Aqua Chem's **Algaecide** for spas. Its quaternary ammonium formulation destabilizes the cell wall of algae, allowing bromine or chlorine to kill the algae.

Green is for Specialty & Accessory Products

This color code is made of specialty items for your spa, no less important than the previous four categories, but essentially a catch all for other products.

This color code includes bromine, the preferred form of sanitation for spas and hot tubs. Aqua Chem **Brominating Tablets** or the self dispensing **Brominating Floater** allow odor-free sanitation of your

